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JANUARY, 1974

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Angler

the
**Keystone State's
Official
FISHING·BOATING
Magazine...**

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DOCUMENTS SECTION

THE ENERGY CRISIS



Everyone is writing about what is called an energy crisis—and always in terms of how their own ox is being gored—and since it will drastically affect our operations, we feel a duty to comment too. Though little will be gained recalling both the definition and philosophy of conservation: “the wise use of our natural resources,” we feel we should point out that it was mostly the lonely voices of organized sportsmen, through the National Wildlife Federation, crying out in the wilderness during the last five years, deploring the steady depletion of our non-renewable resources.

As early as 1970, the Environmental Quality Index (published by N.W.F.) revealed graphically that we had but a mere 15 year reserve of natural gas. The known reserves at that time indicated the finiteness of our mineral resources and man's exploitation of them stands as a most stupid monument to his greed!

“Tomorrow” has suddenly arrived; the word *conservation* must take on a new and broader meaning. Even to stalwart sportsmen it must apply to far more than woods and wildlife. New habits of self-regulation in the use of our energy sources and other materials must be developed . . . or accept the alternative of government-imposed restrictions.

As far as we're concerned, the one group that is most capable of such self-restraint is the organized sportsmen and those who serve them directly. In the not too distant past, we were running through our wildlife resources with mindless abandon. Some of our finest game species were in danger of severe depletion, if not extinction, but wise and visionary men saw the danger and began the fight to restore their numbers. Their success is evident in the return of deer, elk, antelope, wild turkey and others; a fine tribute to the wisdom and tenacity of early conservationists who not only accepted necessary controls, but paid the bill as well.

Sportsmen, always willing to accept and abide by limited seasons and harvests, have become symbolic of a frame of mind that may now serve as an important lesson to all Americans. Fish and wildlife are resources that we don't have to worry about today because they are in good hands—and, they're renewable. The fish and wildlife crises are long-gone; the energy crisis is just arriving.

In mid-November, the Fish Commission joined other state agencies with an energy conservation plan. We reviewed the routing of our fish stocking trucks; smaller trucks will be replaced with “mother trucks” which can further reduce the number of trips necessary to accomplish our stockings; the use of heavy equipment will be curtailed, at least until spring. Further, we will review priorities on the activities in all divisions and consolidate travel schedules of all Commission personnel as well as institute cutbacks in thermostat settings, speed limits, and the use of lights.

Perhaps the most significant savings will be achieved from the implementation of our new stocking formula adopted in April of 1973. In determining the numbers of catchable trout to be stocked (within a county) the number of licenses sold within that county are given a “weight factor” of 60%. The use of this formula will provide more recreation closer to the buyer's home, and while it will require the use of more of our gasoline for the “Great White Fleet” to get there, it will result in a saving, at a 900,000-to-1 ratio, of gasoline used by fishermen.

In these times, there is justification in this program which is in line with our long-range objective of “providing fishing and boating opportunities within a radius of 25 miles of every Pennsylvanian.” We accomplish this by the development of access areas to existing fisheries, construction of new impoundments, purchase of ponds and lakes, leasing of bodies of waters from private owners, and then enhancing these local fisheries through propagation, stocking and management programs.

All this is well and good, but it's pretty hard to stay objective watching your own good people do everything they're asked to do—and much more besides—and know that their efforts will be but a tiny drop in the bucket as far as real savings in energy are concerned. How helpless we feel when we see power companies, claiming to be in dire need of supplies, now reveal that they can secure higher sulphur content fuels (at a higher price); truckers blocking highways because the only way to get sufficient fuel to move on is to pay higher prices for that fuel!

When we listen to the selfish pleading for special considerations for their particular thing—without which, civilization will absolutely collapse unless that product, program, or status symbol is maintained—it is possible, even at this point, to feel a surge of activity as the “operators” begin their insidious plans (and eventually programs) to insure that their activity or interest will be served in what must surely come—petroleum product shortages. And these resources themselves are not really a factor, except as they affect the petroleum industry's profits and position in world politics.

So, while those people do their worst, we're going to keep trying to do our best . . . only hoping that America has finally become more conscious of the fallibility of the “limitless resources myth.”

RALPH W. ABELE
Executive Director

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MILTON J. SHAPP, Governor

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January, 1974

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FRONT COVER: Tom Fegely provides a view of 16 year
old John Boos, of Coopersburg, usually seen only by fish!

Back Cover: Photographer Edward T. Gray captured
this typical winter scene at Tamarack Lake.

JAMES F. YODER, Editor

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A live minnow brought this hefty 31-1/2' Tiger Musky to the tip-up of John R. Woodward at Beltzville last year.

Fishing Outlook

by Stan Paulakovich

Largemouth bass fishermen throughout the country have developed a new method and theory for regularly taking these fish. It is called *structure fishing*. This is simply fishing in and around underwater obstructions where the bass have gathered in numbers. Places like fallen trees, piles of tree stumps, deep dense weed beds, old foundations, or jumbled rock masses.

Since neither the largemouth nor the smallmouth are great winter biters, it's not a good practice to concentrate solely on them while ice fishing. Other fishes, like the musky, pike, pickerel, walleye, crappie, perch, and trout also like this kind of cover and it might be wise to search for and locate such structures for your winter fishing trips.

Over in Carbon County is newly built Beltzville Reservoir, and there's lots of good structure fishing here. The amazing growth of the tiger musky planted there has quickly earned this 580 acre lake a reputation as a fine fishing spot. The tiger musky, a cross between the musky and the northern pike, has taken on a lot of the characteristics of the pike. For instance, unlike the muskies which won't hit much until they are about 30 inches long, these tigers seemingly hit from the time they are weaned!

During the last two years at Beltzville, ice fishermen who were out for

musky used big minnows exclusively. Three to four-inch shiners are available at several bait shops near the lake all year long. A minimum of 10 pound test line and size 4 or 6 hooks are best. Live bait should be hooked lightly just behind the dorsal fin. Tiger musky should be given ample time to mouth the bait properly after the flag goes up—don't set the hook too quickly.

Several years ago, over in Cambria County's Glendale Lake, Fish Commission personnel experimented with cut bait while fishing for northern pike. Smelt, purchased from the market, were cut in half to get two baits out of one fish. These were placed on the hook and suspended near where other fishermen were using live shiners. Surprisingly, cut smelt caught as many as, if not more pike than, live bait. There is no guarantee that this will work at Beltzville, but it's worth a try.

Last year's ice covering averaged 14 inches. Warm spells caused some melting and open water, but ice remained safe for much of the season. During a normal winter, the ice will reach this thickness and probably more.

Several spots on the lake got the heaviest concentration of fishermen and more fish were caught from these areas. Pine Creek cove, on the left bank looking upstream, on the north shore, is a long narrow cove with

depths running to 50 feet. Much of the cove has depths in the 20 foot range and this proved to be most productive for winter fishing. The cove between Pine Creek and the breast of the dam is similar in physical characteristics. It gets a lot of pressure and records good catches of tiger musky and trout.

All along the 7 miles of the south shore of the lake is great musky habitat. Not as readily accessible, it means a long walk to get to some of the choicer spots. Wild Creek cove, on the north shore, is about midway up the lake. This, too, was a hot spot in 1973. Depths here will be 40 feet or less. There are a lot of submerged trees, stumps, and bushes throughout the entire cove.

Almost directly across from Wild Creek cove is the Preachers Camp Access Area. Ample parking and toilet facilities are provided here. Above this, the lake narrows pretty quickly. The current from the entering stream has some effect in this stretch and drifts your bait around a good bit. Depths here run to over 50 feet around the access. Upstream several miles, at the Trachsville Bridge, it's only a few feet deep. The depth change is gradual all the way. This was another fine fishing area last winter.

The fish stocked in Beltzville were all fry or fingerling. From the orig-

continued on page 9



*That "Tiger" looks too short . . .
but our unidentified angler measures it anyway.
"Tigers" must meet regular musky minimum size—30"!
Take care in releasing short fish; if hooked
deeply, cut the line and save the fish!*



*Pickereel are in a biting
mood this time of year.
Whether taken from open
water, left, or through
the ice, right, they're
real competitors. Are you
a part of the scene be-
low? If not, why not?*





ANYONE EVER TRY 'EM?

In a past issue of the *ANGLER*, I saw an interesting article about fish hearts which I enjoyed. It prompted me to write you for the answer to a question.

On a recent fishing trip, my family and I had a great deal of fun catching bass and northern pike. We did use several of the fish for eating and, of course, they were great. In cleaning these fish we observed that the pike (northerns) had a particularly large liver. It was very clean looking and bright.

I sliced one at an angle to observe the texture and interior and it greatly resembled a chicken liver in color (very pale—tan color) and had the texture of a fresh young calf liver. Could you please tell us—can this liver be eaten? Can any of the other organs or parts of the fish not normally used—be eaten also? Your help with the above would be of great interest to us and appreciated too!

JOHN J. IVANHOE
Somerville, N. J.

Would it be possible to eat fish livers or any other parts or organs of a fish not normally used? I have never heard (or read) of anyone eating livers, but I do not see any reason why they could not be utilized in this manner. As you may know, caviar, a great delicacy, relished almost worldwide is nothing more than fish eggs taken from Sturgeon and processed for market. I have never read any literature warning against eating of those parts rarely used from fish. Ice fishermen claim that perch eggs are delicious!

CECIL R. HOUSER
Pathology Department

If You're Moving—

Your *ANGLER* will be delayed if you fail to advise us in advance. Send us both your old and your new address, including both ZIP codes.

OUR PLEASURE—

We wish to express our sincere gratitude to you and the members of the Pennsylvania Fish Commission for the marvelous fishing trip which you sponsored for our patients on Saturday, June 2, 1973.

This was truly one of the finest off-station activities which our patients have ever enjoyed. The many hours of hard work that were expended by Mr. James Carter, Mr. Harry Redline, Mr. Carroll Irwin and many others in planning and organizing this trip merit the highest commendation.

Their efforts in obtaining the cooperation of city and county officials, as well as local merchants, contributed greatly to the success of this outstanding event. We are also indebted to the wives of these gentlemen who prepared the delicious food which our veterans enjoyed so much.

The warm interest which you and the members of the Commission have shown in the welfare and morale of our hospitalized veterans is indeed gratifying.

WILLIAM J. WAGNER
Director, Voluntary Services

FOR WILLIAMSON—

Just a few lines to let you know that I enjoy reading the "*Angler's Notebook*." There are many helpful items for fishing. My addition to your "Casting into the next county" would be that: "Blockbuster" casting has its advantages, especially in Coho casting where the shoreline turbulence is a big factor. Coho catches are always way down when the shoreline is murky. Also, in motor trolling, a long line out is desirable because of motor noise. The natural conditions, of course, influence the fish reaction to "strange" noises. By a waterfall, one could cast 10 feet and not disturb the fish. On a quiet farm pond a squeaking oar-lock would be like a convention banquet. I agree with drift fishing as being both quiet and interesting. Sometimes motor trollers turn off their engines when nearing a sand bar or rock-haven to prevent spooking.

FRED W. HUSTER
Erie

SECRET'S OUT!

In one of your past issues, there was a letter from a woman *Angler* reader. I am also a woman who loves fishing and the *Angler*. Although I have fished private lakes only, this is the first year I've purchased a li-

cense. We fish mostly in the Shenango River and Lake Wilhelm. I love to read the articles about the places I've fished this past summer because I can say, "*I fished there and caught a few.*"

I play a rather sneaky trick on the two male fishermen in my family. I hide the *Angler* until everyone is sleeping, or away, so I can read it from cover to cover without it being snatched out of my hands before I'm finished. Thank goodness I'm the first to the mailbox. Thanks again.

MRS. LYNDA SZYMONIAK
Baden

That, Lynda, is **DIRTY POOL!** Ed.

DELAWARE'S TOPS!

I enjoy reading your magazine cover to cover each month. Articles about the Delaware River are especially interesting to me because I catch a good many fish in this fine river.

GEORGE WISE
Philadelphia

HELPFUL DEPUTY—

Recently I was given a litter and fish bag by a Deputy Waterways Patrolman at Hunter Dam which came in very handy, also some information on the lake. He was very helpful. I neglected to get his name.

ED. J. COOKSON
Philadelphia

We have hundreds of them, Mr. Cookson. They're a great asset to both fishermen and the Fish Commission. Ed.

SCORED WITH A MUSKY!

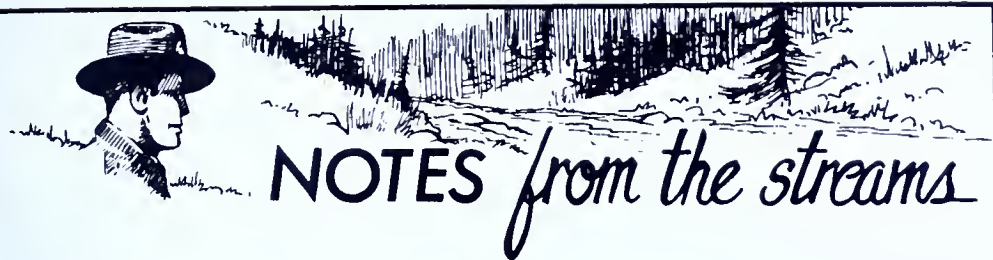
I am from the Harrisburg area and last year followed the Editor's advice and went fishing on Election Day. It turned out to be a chilly overcast day, but on the fourth cast, I hooked and landed my first legal musky from the Susquehanna. Since that time, I have caught seven and missed three—estimated to be all over 40 inches.

I am glad the Fish Commission has the extensive warm water fisheries program that it has and hope it will continue so that my sons can enjoy the thrill of their first musky.

DICK PUERZER
Harrisburg

Wasn't that day something? To top it off, "yours truly" had the flu; stepped on a loose rock and skidded 15 feet to the river; went home "skunked" after 5 hours of fishing!

Ed.



FISHING SURE GETS EXCITING!

While patrolling the Fish-For-Fun area in my district, I saw a fisherman fishing from a narrow foot bridge. As I approached, I noticed a fishing vest, shirt, socks, and hip boots hanging neatly on a nearby fence. When I asked the gentlemen on the bridge how the fishing was, he replied, "fine, except that I just fell in the creek!" I asked how he had managed to do that. He said, "Well, I had caught a couple nice sized trout earlier, then I hooked this BIG ONE while standing on this narrow bridge . . . and I stepped back for more fighting room!"

Larry V. Boor
Waterways Patrolman
Franklin County

"HAIRY" SITUATION

It seems that water skiing has taken its toll again. George Wright was skiing on Lake Wallenpaupack and lost his hair piece, it has been

reported. Should anyone fishing in this lake catch a fish that has hair, please check closer and if it happens to be a hair piece, please contact George or Dave Wycoff to see if it is the one lost. Thank you. Dave didn't say if there is a reward or not.

Joseph E. Bartley
Waterways Patrolman
Pike County

IN ARREARS!

While paying a fine for fishing without a 1973 license, a recent violator of the fish law stated, "Boy, there goes 5 years' worth of fishing licenses!"

To this I questioned, "Did you ever buy a license before?" The violator answered, "No."

To this I added, "Well, you just paid for the past 5 years of FREE FISHING!"

Jim Smith
Waterways Patrolman
Allegheny County

NO GOOD!

I was informed by a coho fisherman that the "hard white sacks" in a coho salmon were not good to eat. He told me that his buddy had fried them up and tried to eat them but that they were NO GOOD! When I informed him that the sacks were the sperm sacks, not the roe, he looked at me and replied, "no wonder they weren't good!" He said, "You learn something new every day."

James R. Carter
Waterways Patrolman
Erie County

NO END!

While fishing recently in Lake Erie, with Jim Lauer and his sons, we were catching quite a few sheephead. One of Jim's boys was doing exceptionally well. So well, in fact, that he was overheard telling his brother, "Maybe I'd better slow down before I clean out the Lake!"

Little danger of that, Todd, the number of fish available in Lake Erie is more than all the fishermen in the state could catch.

Harry H. Redline
Waterways Patrolman
Erie County

BOATING CLASSES To Begin Soon—

A complete listing of the BOATING CLASSES scheduled for 1974 will be published in next month's issue of the Pennsylvania Angler. The classes scheduled to begin in January are listed below.

COUNTY	LOCATION	DATE & TIME
PENNSYLVANIA FISH COMMISSION—BASIC BOATING COURSE (3 lessons)		
Adams	Gettysburg Campus West ROTC Bldg., Gettysburg	16 Jan—7:00 PM
Allegheny	Monroeville Mall Community Room, Monroeville	11 Jan—7:30 PM
Erie	Northwestern High School, Albion	3 Jan—7:30 PM
Fayette	Fairhope Rod & Gun Club, Fairhope	9 Jan—7:00 PM
Pike	Wallenpaupack Lodge, Lake Wallenpaupack	8 Jan—7:00 PM
Union	County Courthouse, Lewisburg	14 Jan—7:00 PM
Wayne	Park Office, Prompton State Park	21 Jan—7:30 PM
COAST GUARD AUXILIARY BASIC BOATING & SEAMANSHIP (12 weeks)		
Cumberland	Harrisburg Seaplane Base, Wormleysburg	14 Jan—7:30 PM
Lebanon	Indiantown Gap Mil. Res. Area 14, Bks T-14-402	7 Jan—7:30 PM
Monroe	E. Stroudsburg State College, Stroud Hall, Rm. 314	9 Jan—8:00 PM
Northampton	County Community College, Rm. BE-101, Bethlehem	3 Jan—7:00 PM
Philadelphia	Northeast High School, Philadelphia	16 Jan—7:30 PM
Philadelphia	U.S. Custom House, Philadelphia	14 Jan—7:30 PM
Westmoreland	Greengate Mall, Greensburg	19 Jan—10:00 AM
York	Caterpillar Tractor, York	8 Jan—7:30 PM
COAST GUARD AUXILIARY BASIC BOATING (3 weeks)		
Allegheny	Red Cross Bldg., Pittsburgh	7 Jan—7:00 PM
Cumberland	Harrisburg Seaplane Base, Wormleysburg	16 Jan—7:30 PM
U.S. POWER SQUADRONS 10 LESSON BOATING COURSE		
York	York Vo-Tech High School	8 Jan—7:30 PM



Many ice fishermen turn out every weekend on Lake Wilhelm's upper end, near Sheakleyville, seeking those spotted battlers.

Northern Pike Bonanza

by Thad Bukowski

photos by the author

If Lake Wilhelm improves any more during the coming ice-fishing season, a host of anglers will flock to the 11 mile long, newly constructed impoundment.

As many as 50 northern pike a day were taken last season by anglers fishing through the ice, and even though most of these fish were still undersized, the tip-up fishing was most interesting. The story should be different this season with more fish having reached legal size.

Hotspot of the narrow 11-mile long lake has been the upper end, near Sheakleyville, Pa. The easiest approach to the area is from U.S. 19 which courses through the small town.

Best fishing areas are in the vicinity of two Causeways; one, the giant I-79 overpass which crosses the lake at its upper end, and a smaller macadam road nearby. It is here that most of the northerns have been tak-

ing minnows and dead smelt which may be purchased at local markets. Fishermen believe that an oily substance that oozes from the smelt has a special attraction for the pike.

The 1,860 acre lake also began to establish itself as a walleye and bass lake. Anglers caught legal fish of these species in good numbers for the first time during the summer of 1973, according to Pete Isaac, who runs a bait shop on the western edge of the small Causeway. In addition, pan fish are getting to good size and may be an added attraction this winter season. Plenty of parking space is readily available for anglers nearby.

The lake was formed not long ago as a Mercer County and Sandy Lake District flood control project. Eventually, it became a multi-purpose flood control and recreational facility with full pool in 1971. The easily accessible lake has roads on both sides and ready approaches from Sandy

Lake to the south and Sheakleyville. Four good temporary boat launches and parking areas are available at strategic points on the lake. The park area consists of 5,054 acres of land with 25 miles of shoreline. The new Marina has 200 boat slips and 250 car-parking spaces.

Lake Wilhelm and Goddard State Park were constructed through the combined efforts of the DER, U.S. Soil Conservation Service, and the Mercer County Commissioners using Project 70 funds. In 1971, after a 12-year period of work, the area, formerly known as the Sandy Creek Watershed was named "Watershed of the Year in Pennsylvania."

During 1971 and 1972, the Pennsylvania Fish Commission stocked the area with 8,500,000 walleye fry and 1,040 adults; 170,000 largemouth bass fry; 9,500 fingerling; 20 adults; and 9,580 experimental striped bass, in addition to other species.



That's young Gary Krupowic in the middle, above, playing a good sized northern pike. John Verigood, left, is calling the plays while Arnold Ponevac, right, looks on. There's the catch, above right, a seven pounder! John had to lend Gary a hand in bringing the big pike up through that small hole, below right. Now that we've got this monster on the ice, below, how do we hold him?



KEYSTONE CAMPING

by Thad Bukowski

CAMPING AT DEW DROP

Our camp looked down on much of the layout which ended at the shore of the big Kinzua Arm of the dam. We were at Dew Drop where 89 sites hid themselves away in oak, maple and blue beech, sprinklings of hemlock and witch hazel undergrowth. Over a dozen sites were "walk-ins" at the water's edge, where tenters usually put up for a longer stay. Dew Drop is about 10 miles north along Rt. 59 from Warren, Pa.

Sites at Dew Drop include long gravel approaches, for many of the campers are big horsepower boaters and they need the added space for their boat trailers. Boats of various types and sizes dotted the thousand yard shoreline below the camping area.

There was considerable controversy and inquiry about fish and fishing at Dew Drop during our stay. Anglers were puzzled about the inconsistent catches inside the huge Kinzua, while just below its outlet, at the tailrace, angling is about as phenomenal as it can be for much of the cooler seasons. The tailrace is less than five miles from Dew Drop camp.

Folks at the Wolf Run Marina, on the east shore just beyond the huge Cornplanter Bridge that spans the Kinzua Arm of this lake, report that the most common summer fish taken inside the dam is the crappie. A good perch catch was made through the ice for the first time last winter.

On the east shore of the bridge, the Forest Service has constructed one of the finest swimming beaches and picnic grounds in this part of the state. It includes excellent change-house facilities, plenty of shade trees and a grassy slope that extends to the sandy beach, really an ideal area for a Sunday afternoon of enjoyment. A slight fee is charged for the swimming but the picnicking is free and includes tables and grills.

Kinzua Point Information Center is located diagonally opposite the swimming site, across the bridge. Just across from the Information Center

is the turnoff from Rt. 59 to the Dew Drop campground.

When one comes camping here, the vastness of the forest awes the visitor. Boats on the huge lake appear like tiny miniatures in a huge, green-sided tub whose ends disappear out of sight both to the north and south.

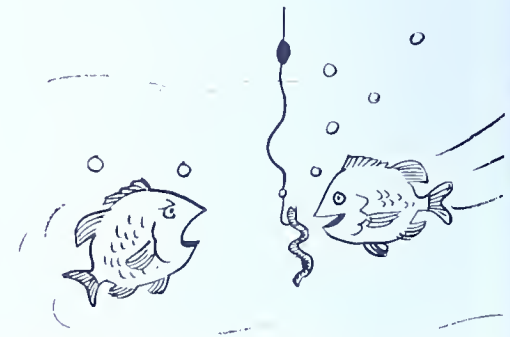
Just below the dam, a huge new complex awaits the fisherman and canoe traveler, for on the same side that Rt. 59 winds past the dam, the U.S. Corps of Engineers has constructed a big complex for recreation seekers with an information center, museum, concession, toilet facilities and extensive parking areas on macadam. A gravel approach to the bank of the river below the complex is lighted during the night. This is the famed "tailrace" area just below the dam, where record brown trout, muskellunge, and walleyes are taken repeatedly.

Also coming into operation across

the river at this point, is the U.S. Fish and Wildlife Service's \$2 million hatchery complex which is expected to add considerably to the trout populations of the Allegheny Forest's many streams.

Camping at Dew Drop is \$2 per car and includes everything but electricity. At nearby Wolf Run Marina, 14 and 16 foot boats are available, with or without motors, at reasonable rates for the fisherman. Bait for fishing is also available here. The vacationer also has the opportunity to view the vast reservoir from nearby mountain tops at two scenic overlooks called Jake's Rock and Rim Rock where parking and picnic facilities are available.

A pair of field glasses would add immeasurably to any camper's enjoyment when he visits this vast pristine area.



"It's my turn to get caught; he's already thrown you back four times!"

A camper puts on the coffee pot at Dew Drop Campground along the Kinzua.





THE ANNUAL REPORT of the Pennsylvania Fish Commission

Looking back on this, the 108th year of the PENNSYLVANIA FISH COMMISSION, the record shows many accomplishments in providing fishermen and boaters with countless hours of outdoor recreation.

The nine members of the Commission, all of whom serve voluntarily without salary because of their dedication to the cause of conservation, met in formal sessions four times during the course of the fiscal year—July 14 and October 16, 1972; January 5 and April 6, 1973. During these meetings, policies and programs to improve Pennsylvania Fishing and Boating were shaped. New directions were set to guide the Commission's staff and employees during increasingly difficult and rapidly changing times. Among these were: the expansion of LAW ENFORCEMENT REGIONS from four to six; revisions in warmwater and trout stocking policies; establishment of new FISH-FOR-FUN and FLY-FISHING-ONLY trout waters; adoption of revised and new regulations to make pleasure boating on Commonwealth waters safer; approval of acquisitions and development (most of which is being financed through Project 500) to make boating and fishing more accessible and convenient for a rapidly growing number of anglers and boatmen; and many other actions designed to further the work of this relatively small agency of state government in the most efficient and

economical manner.

What the record fails to show, however, are the frustrations, unsolved problems, and unobtained goals that characterized this particular year. It was a year of trying to recover and protect our streams in the wake of the Hurricane Agnes floods of June, 1972. It was a year of rapidly rising costs of operation and a campaign to secure moderate increases in fishing license fees with which to meet those increased costs. It was a year of watching the erosion of standards established with the past decade to protect and even improve the quality of the environment; it was a year of a difficult and continuing fight to maintain those standards so that long-term benefits would not be sacrificed on the altar of short-term political and economic expediency.

Directing the work of some 415 dedicated employees, assisted by a corps of volunteer special waterways patrolmen, during this turbulent but successful year in the Fish Commission's history, has been a great challenge. Yet, at the same time, it has been a year of great satisfaction for the opportunity to serve the Commission and the sportsmen of this great Commonwealth.

Ralph W. Abele
Executive Director



Larger fish at less cost is the goal of fish culturists at Linesville. Here, muskellunge and bass undergo experimental dry feeding.

Fish culturists at Linesville net brood stock from Pymatuning Lake, strip them of eggs and milt, and release them unharmed back into the lake.



BUREAU OF FISHERIES & ENGINEERING

DIVISION OF FISHERIES

To more effectively achieve Commission goals and to clearly define areas of responsibility, the Division of Fisheries is organized into four sections: FISHERIES MANAGEMENT, RESEARCH, COLDWATER PROPAGATION, and WARMWATER PROPAGATION.

Division staff members participated in conservation education programs, field investigations, and represented anglers at hearings and as participants in a number of committees including the Pennsylvania Water Resources Coordinating Committee, State Water Plan Subcommittee, Delaware River Fisheries Technical Committee, Brandywine Creek Pollution Task Force, Clearcutting Evaluation Committee, and the Northeast States Salmonid Brood Stock Selection Committee.

FISHERIES MANAGEMENT SECTION

The establishing of this section has proved that an organized approach to fisheries management is more effective and beneficial to Pennsylvania anglers. During the fiscal year, survey work included 128 stream surveys in 48 counties and 32 lake surveys in 23 counties. A new formula was developed for establishing basic numbers for trout stocking. Other activities included: completion of the Colyer Lake study; completion of initial phases of wired area and trout migration study; continuing evaluation of warmwater stream fisheries; a lake draw-down study; the Blockhouse Creek study, a study of the effects of channel diversion into a *man-made* streambed; the Bush Run project, a study of brook trout population in a typical mountain stream—part of the wilderness trout stream program; the Big Spring stream improvement project; and the Plum Creek fingerling study.





Nearly 200 aquatic herbicide applications were processed. Any other requests for assistance in determining dosages, application guidelines, and other aid regarding the use of chemicals were answered.

The submission of data and recommendations to DER's Bureau of Water Quality Management, in assisting that bureau meet Federal deadlines for the establishment of updated water quality standards for major Commonwealth watersheds, consumed considerable staff time. Staff members also testified as expert witnesses on behalf of the Commonwealth at pollution hearings.

Two District Biologists were established within the section to increase the effectiveness of the management effort: one in the southeastern sector of the state and one in the southern sector.

RESEARCH SECTION

The section was expanded to include four aquatic biologists, a chemist, (transferred from management), three fishery technicians, a secretary, and a part-time librarian.

A mobile laboratory was purchased for field work. This specially designed vehicle will accommodate a variety of laboratory apparatus and will provide the flexibility to respond to the need for on-the-spot chemical and laboratory analysis resulting in great savings in time and sample preparation costs in routine field research activities.

Research projects included: the Amur River pike hybridization study; Atlantic salmon culture studies; whirling disease study; effluent study; ozone study; development of staining techniques; pathology research; diet studies; viral studies, and



← Raising enough fish to satisfy the demands of over a million Commonwealth anglers is a round-the-clock operation at each of our hatcheries.



The research section's new mobile laboratory will facilitate on-the-spot chemical analysis in routine field research activities.



Above: Trout are weighed prior to shipment to your favorite streams. At left: A part of the "Great White Fleet" lines up at Huntsdale.



Loading the fish trucks is an early morning operation. Workers at the Pleasant Gap hatchery are readying a shipment for Muncy Creek.



Driver Jack White and Waterways Patrolman Frank Kann begin netting out the trout for stocking in Muncy Creek. Volunteers are on hand to help.

general research including evaluation of genetic resistance to IPN. Staff also conducted 193 diagnostic pathology investigations at Commission hatcheries to insure the health and quality of our hatchery products. Staff assisted a number of cooperative nurseries in the control and treatment of diseases.

The section sponsored a school for fish culturists and presented a workshop for commercial trout growers, alerting the growers to potential disease hazards and familiarizing them with the Commission's program and responsibilities.

PROPAGATION SECTIONS

Coldwater and Warmwater Propagation sections, through the Cooperative Nursery Branch, furnished 835,860 fingerling trout, 2,000 largemouth bass fry, 50,000 eyed brook trout eggs, 38,500 green coho salmon eggs, and 280,000 green walleye eggs to sportsmen sponsored cooperative nurseries.

A total of 117 organizations sponsored 149 trout nurseries and 2 largemouth bass nurseries during the year. Four regional seminars were conducted for representatives of groups sponsoring the nurseries.

Despite the effects of the flood of 1972, the efforts of the trout production staff to attain the primary objective of the Coldwater Propagation Section—the production of sufficient numbers of healthy adult trout to meet the requirements of the trout stocking program—were outstanding.

The results of propagation efforts for all species are summarized as follows:

FISH STOCKED BY STATE HATCHERIES ONLY

SPECIES	FRY	FINGERLING	
	Number	Number	Weight
TROUT			
Brook		228,450	2,7
Brown		343,950	4,9
Rainbow		356,850	7,1
Palomino Rainbow		1,190	1
Lake Trout		1,000	
TOTAL TROUT		931,440	14,9
SALMON			
Coho		294,640	19,0
Kokanee		18,000	3
Chinook		155,000	1,2
TOTAL SALMON		467,640	20,6
GAMEFISH			
Chain Pickerel	39,000	1,465	3
Largemouth Bass	618,400	177,445	5
Muskellunge	697,500	84,752	7,3
Northern Pike	2,165,000	7,980	8
Smallmouth Bass		3,772	
Walleye	32,340,000	9,908	1
Amur Pike Hybrids		360	1
Striped Bass		3,560	
TOTAL GAMEFISH	35,859,900	289,242	9,4
PANFISH			
Black Crappie		55,000	1
Bluegill		86,000	
Brown Bullhead			
Carp			
Channel Catfish		203,530	1,5
Redear Sunfish		89,000	
Sunfish (Common)			
White Crappie			
Yellow Bullhead			
Yellow Perch		25,000	
Catfish			
TOTAL PANFISH		458,530	1,1
FORAGE FISH			
Fathead Minnow		5,000	
TOTAL FORAGE FISH		5,000	
GRAND TOTAL	35,859,900	2,151,852	46,5

STATE-FEDERAL COOPERATIVE STOCKING PROGRAM

COLD WATER FISHERIES

Number of trout streams stocked	894
Miles of trout streams stocked	4,863
Acres of trout streams stocked	18,601
Number of ponds and lakes stocked with trout	81
Number of lakes stocked with trout (Experimental)	6
Acres of ponds and lakes stocked with trout	10,303
Acres of lakes stocked with trout (Experimental)	4,513
Total acreage	33,417

Number of cold water fish (trout and salmon) stocked:		
Fingerling	—	1,399,080
Adult	—	3,818,843
Total	—	5,217,923

WARMWATER FISHERIES

Miles of warmwater streams	2,336
Miles of warmwater rivers	1,708
Number of warmwater ponds and lakes	337
Acres of warmwater ponds and lakes	93,578
Acres of Lake Erie in Pennsylvania	640,525
Total acreage	734,103

Number of warmwater fish stocked:		
Fry	—	37,059,900
Fingerling	—	765,772
Adult	—	82,019
Total	—	37,907,691
GRAND TOTAL OF ALL FISH STOCKED	—	43,125,614

RING FISCAL YEAR JULY 1, 1972 TO JUNE 30, 1973

ADULT		GRAND TOTAL	
Number	Weight	Number	Weight
35,793	235,289	764,243	238,040
12,008	595,132	1,855,958	600,032
51,724	618,105	1,708,574	625,217
28,830	20,855	30,020	20,974
1,200	80	2,200	135
29,555	1,469,461	4,360,995	1,484,398
25,500	2,350	320,140	21,439
		18,000	395
		155,000	1,214
25,500	2,350	493,140	23,048
		40,465	387
720	509	796,565	1,075
		782,252	7,312
2,620	3,750	2,175,600	4,589
		3,772	25
3,665	6,195	32,353,573	6,367
55	45	415	159
		3,560	60
7,060	10,499	36,156,202	19,974
2,622	2,622	57,622	2,811
9,642	4,569	95,642	4,623
46,167	29,601	46,167	29,601
3,100	7,082	3,100	7,082
3,060	1,150	206,590	2,670
		89,000	61
5,291	753	5,291	753
97	97	97	97
4,180	2,628	29,180	2,673
800	415	800	415
74,959	48,917	533,489	50,786
		5,000	8
		5,000	8
37,074	1,531,227	41,548,826	1,578,214



The soaring price of fish food was one of our major concerns during the fiscal year. Tons are consumed annually at each installation.



Mechanical feeders are employed here in the Union City hatchery to cut down the cost of production of warmwater species.



Renovation of Corry hatchery called for the construction of new raceways which will add greatly to this facility's production.

Footers were in place when this photograph was taken of the Fish Commission's reconstruction at the Oswayo hatchery site.



BUREAU OF FISHERIES & ENGINEERING

DIVISION OF ENGINEERING

Engineering Division construction and maintenance crews cleaned and repaired forty-five public access and fish cultural station properties damaged by the June 1972 flood waters. It was unexpected work, taking priority over all other and adversely affected regular improvement and development schedules for the remainder of the year. However, the benefit of having men and equipment on hand to quickly cope with emergency situations was shown by the rapidity with which the damaged facilities were restored to full use. To have had to rely upon the forces of others, whether private contractor or another public agency, would have more than likely resulted in many of the properties not being reopened until the following spring. As it was, all were restored to service by the fall of 1972.

Not all work of the Division was delayed by the flood. The surveying, drafting, and engineering staff designed and contracted four major Project 500 development projects: the construction and renovation of the Corry, Tionesta, and Oswayo Fish Cultural Stations, and the construction of Mill Cree Dam and facilities in Clarion and Venango Counties. Another Project 500 development project, Rose Valley Lake, in Luzerne County, which was in progress during the previous year, was completed in October, 1972. In design, and also Project 500 project, are the plans for the construction and renovation of the Reynoldsdale Fish Cultural Station. During the year, two G.S.A. sponsored trout production unit construction contracts were completed—one at Corry, the other at the Huntsdale Fish Cultural Station. Other tasks undertaken by the engineering staff included twenty-eight site investigation fifteen of which were for possible new access sites; surveying of sixteen properties to establish boundary lines, and nine to obtain topographical plans; and the preparation of fourteen property plans. In all, some thirty-five design assignments both large and small, were performed.

Besides the contracted development projects already mentioned, the design work resulted in: the development of four new access areas—Oil City in Venango County, West Hickory in Forest County, Phoenixville in Chester County, and, Wino Lake in Wyoming County (in progress); major improvements (in progress) to three other access areas—Lily Lake in Luzerne County, High Point in Somerset County, and Brady Lake in Monroe County; the construction of a raceway unit at Corry Fish Cultural Station; general improvements to eight fish cultural stations; four water well exploration projects; numerous production engineering tasks; an addition to the main office building at Pleasant Gap; and, the continuation of the Big Spring and Piney Creek stream improvement projects. All of the latter, with the exception of the well drilling work, were performed by the division's construction crews.



FISHERIES ENVIRONMENTAL SERVICES BRANCH

This branch cooperates with the Department of Environmental Resources to safeguard the aquatic resources of the Commonwealth, during the year reviewed and acted upon 713 acts of highway plans; 776 applications for waterways encroachment permits; 258 applications for mine drainage permits; 126 U.S. Army Corps of Engineers river encroachment public notices; and, 402 final permits issued by DER. Branch personnel also attended 125 meetings and made 35 field trips to assist in planning stream improvement projects.

Other activities included participation in planning the Boy Scouts of America Jamboree at Moraine State Park; instruction of B.S.A. fish and wildlife merit badge courses at P.S.U.'s Altoona Campus; planning stream improvement projects for DER's strike force on streams damaged by unauthorized channelization after Hurricane Agnes; and preparing plates for a new Stream Improvement Guide.

The crews of the Division's four regionally located maintenance units, including two additional subunits, performed routine maintenance functions at the Commission's fifty-four impoundments, one hundred seventy-four access areas, nine regional offices (maintenance and enforcement), sixteen improved streams, and six Coho and Chinook Salmon nursery facilities. Additionally, the crews performed nonroutine maintenance tasks at the eleven fish cultural station complexes, and at propagation lakes. Personnelwise, the crews are increased each summer with part-time help. The maintenance section's capacity to care for more properties each year is also bolstered by mechanizing as many chores as possible, and by progressively upgrading and modernizing equipment.



Left: Additional raceways under construction at Corry. Above: The filling of Rose Valley Lake, in Lycoming County was accomplished last year.



This impoundment will add a new dimension to fishing for warmwater gamefish in Lycoming Co. Mammoth parking lots stand ready for use.



Three paved launching ramps make access to Rose Valley Lake's 360 acres quite convenient. Local residents have high hopes for its future.



Huntingdon County Waterways Patrolman Jim Valentine's working day will include a variety of duties from routine license checks to pollution investigations.



BUREAU OF WATERWAYS

LAW ENFORCEMENT DIVISION

FISH LAW ENFORCEMENT

A salaried force of 66 Waterways Patrolmen, assisted by some 450 Special Waterways Patrolmen, reported 3,932 violations of the Fish Law, a slight increase over last year. Fishing without a license and littering were the most prevalent violations. In addition to those prosecutions, 2,770 persons were given warnings for various infractions of the law.

BOATING LAW ENFORCEMENT

District officers were assisted by more than 175 special officers employed during the summer boating season on the most heavily used lakes and reservoirs. These officers boarded and inspected 10,982 vessels, of which 6,056 met legal requirements. Of the remainder, 3,401 were issued warnings and 1,525 received summons to appear before district magistrates. In other patrol activities, Commission officers assisted 15 boats in distress, involving 464 people. The most prevalent violations of Pennsylvania's Boating laws, rules and regulations were those concerning Personal Flotation Devices and negligent operation, principally, failure to operate a boat at slow minimum height swell speed in areas restricted to such speed.

ENVIRONMENTAL PROTECTION

Next to conservation education activities, environmental protection requires the most time on the part of Commission field officers. Review of permit applications for hundreds of "stream restoration and clearance" projects resulting from Hurricane Agnes and other floods placed an unusually heavy workload on Waterways Patrolmen. In addition, these officers reviewed 1,043 applications for channel changes, bridge projects, and pipeline crossings of streams, reviewed hundreds of Soil Conservation Service projects, and reviewed or monitored hundreds of mining applications.

WATER POLLUTION CONTROL

More time and travel than ever before was required to prevent or investigate reports of water pollution. Although the number of actual pollutions decreased slightly from the previous year, the amount of fines and monetary restitution collected under the Fish Law increased to a total of \$225,000.

MARINE SERVICES

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BOATING EDUCATION DIVISION

Recreational boating continued to increase at a rapid rate on Commonwealth waters with an increase of 13% in registered boats (141,000) over the previous year. In addition, an estimated 100,000 non-mechanically propelled boats (sailboats, rowboats, canoes, kayaks, rubber rafts, etc.) used Pennsylvania lakes and streams this year.



BOATING ACCIDENTS

The number of boating accidents declined this year, probably due to increased emphasis by Commission personnel, Coast Guard, volunteer boating organizations and news media on boating safety and accident prevention. The record shows:

	1973	1972
Number of Reported Accidents	94	108
Fatalities	32	46
Injured	58	52
Property Damage	\$67,000	\$73,030

A study of boating fatalities over the past four years points out that half of all deaths from boating take place in the spring months, the time when most waters are high and cold. Of the 71 fatalities during this period, 60 (84%) occurred on boats not required to carry lifesaving devices.

BOATING SAFETY EDUCATION

Boating safety education, presented in official 3-lesson, 6-hour basic instruction, reached 2,300 boaters in 58 schools conducted by Commission officers. The U.S. Coast Guard's self-instructing course, "The Skipper's Course," was also included in the Commission's boating education program and 5,000 boaters took advantage of this simple, but effective, home-study course. Additionally, Commission personnel worked closely with the Power Squadrons, Coast Guard Auxiliary, Red Cross and local Safe Boating groups to inform the public on the hazards, as well as the pleasures, in boating on Commonwealth waters.

BOAT CAPACITY PLATES

Applications for Boat Capacity Plates continue to increase, with a total of 4,113 issued this year as compared to 3,977 last year. These plates are required on all monohull boats less than 20 feet in length, except canoes, kayaks, inflatables and sailboats, sold or transferred after January 1, 1969. They enable the owner or operator to determine the safe load his boat can carry.

PATROL CRAFT

Seven new patrol craft were placed in service this year, bringing to 131 the total number of boats being used by Commission officers on Commonwealth waters. Five of the new boats were inboard/outdrives of 165 to 188 horsepower, replacing older boats which have been phased out. Two 16 foot, 45 hp airboats are now in service and have proved very useful along the Susquehanna River and the upper reaches of the Delaware River.

← Crew of the Fish Commission's Lake Erie patrol craft often ventures far offshore in routine (and some "not-so-routine") patrol work.



Teaching youngsters how to fish is all in a day's work. Here Waterways Patrolman Paul Antolosky teaches group proper rod handling technique.



Distributing fish throughout the district is the Waterways Patrolman's chore. This is an Amur River Pike being released in Glendale Dam.



Fishing license sales during the last full calendar year established an all-time record, exceeding 865,000.



The personnel of the licensing section did an efficient job in delivering fishing licenses to issuing agents throughout the state.



License applications, forms, brochures, news releases, and a host of other printed matter are produced at the Harrisburg headquarters.

BUREAU OF ADMINISTRATIVE SERVICES

During the fiscal year administrative operations increased substantially as a result of a greater demand made by the fishing and boating public throughout the Commonwealth.

The growing interest in fishing and boating was reflected in the number of fishing licenses issued during the past license year. License sales exceeded 865,000 which established a new record. This record increase in sales was established in all categories of licenses; resident, senior resident, non-resident and tourist.

FEDERAL AID

The section on Federal Aid Coordination prepared and presented four new* projects during the year ended June 30, 1973. Federal reimbursements for the year totaled \$241,883.87. Additional billings were made to the Federal Government totaling \$568,590.15 and were outstanding at year's end.

An indication that both the fishing and boating public receive fair shares of the Federal Aid dollar is supported by the following (fishing oriented) projects, together with ongoing and recently completed (boating oriented) projects at Tarentum, Oil City, Lake Winola, Linden, Walnut Creek, Mill Creek Dam and Rose Valley Lake. These boating type acquisition and developments have combined and actual costs of \$1,137,872.68.

Anadromous Fish Fund

	Planned Cost	Anticipated Reimbursement
Coho (AF5-3-2)	\$ 57,400.00	\$ 28,700.00
Delaware River Research (AF5-2-6)	20,408.95	12,245.37
	<u>77,808.95</u>	<u>40,945.37</u>

Fish and Wildlife Restoration (D-J)

Whirling Disease (F-35-R-5)	33,357.00	25,017.75
Allegheny River Survey (F-39-R-4)	33,133.00	24,849.75
D-J Maintenance (F-30-D-8)	148,030.00	111,022.50
* Access Area Dev. Prog. #1 (F-44-D-2)	97,900.00	73,425.00
* Access Area Dev. Prog. #2 (F-46-D)	180,170.00	135,127.50
* Trout Strains Growth Study (F-47-R-1)	12,000.00	9,000.00
	<u>504,590.00</u>	<u>378,442.50</u>

Commercial Fish Act

Trout in Series Silos (3-112-R-3)	22,001.00	16,500.75
Warmwater Fish in Silos (3-110-R-3)	12,081.00	9,060.75
Commercial Fish Study, Lake Erie (3-167-R-1)	58,470.00	43,852.50
	<u>92,552.00</u>	<u>69,414.00</u>

Federal Land and Water Conservation Fund (BOR)

* Oswayo Hatchery Development (42-00228)	910,700.00	455,350.00
GRAND TOTALS	<u>\$1,585,650.95</u>	<u>\$ 944,151.87</u>

REAL ESTATE

The Real Estate Division's principal responsibility is that of land and water acquisition. The Division also assumes the ever-increasing responsibility of "property management" of a Commission-owned real estate.

The more urbanized we become, the greater is the demand for public fishing and boating access areas. The Fish Commission recognizes this need and through the Real Estate Division is taking positive action to gain public access to prime fishing and boating waters throughout the Commonwealth.

The vast majority of the lands under the control of the Commission is owned in fee and, thereby, preserved for the public use in perpetuity. Due to escalating land values and limited acquisition funds, many additional acres and miles of waterways are being made available for public enjoyment by use of long term lease agreement with municipalities, water authorities, industries and other State or Federal agencies owning large tracts of land or water.

Some of the major acquisitions completed or worked on during this past fiscal year include:

Lands acquired: Hereford Manor Lakes, Beaver County, 448 acres of land and water.

Stream acquired: Muddy Creek, York County, \$6.85 acres.

Additional land acquisition at Commission-owned properties: Minsi Lake, Northampton County, 6.221 acres; Mussers Dam, Snyder County, 0.732 acres; Rose Valley Lake, Lycoming County, 27.731 acres; and Elk Creek, Erie County, 3.0 acres.

The following lease agreements were instituted: Pardee Beach, Monroe County, fishing and boating access to Delaware River; West Hickory, Forest County, fishing and boating access to Allegheny River; Black Rock, Chester County, fishing and boating access to Schuylkill River; Kimmetts Lock, Lehigh County, fishing and boating access to Lehigh River, Penns Creek and Cherry Run, Union County, fly fishing stream; and Clarks Creek, Dauphin and Lebanon Counties, fly fishing stream.

Projects under various stages of acquisition: Brady's Bend, Armstrong County, Allegheny River Access; Fords Lake, Lackawanna County (additional land); Lake Winola, Wyoming County, (additional land); Hankins Pond, Wayne County (additional land); and Bellefonte Fish Cultural Station, Centre County, spring acquisition.

In addition, numerous potential access sites were investigated throughout the Commonwealth, ten utility right-of-way licenses were prepared and completed, more than twenty-five boat storage leases were processed and two cooperative agreements were prepared—one at Kaerchers Creek, Berks County; the other with the State of Maryland for the Conowingo andougheny Reservoirs.

MISCELLANEOUS LICENSES & PERMITS

The miscellaneous license and permit section reviewed and issued the following:

Regulated Fishing Lake	299
Artificial Propagation	199
Live Bait Dealer	407
Transportation	92
Net Permit	245
Scientific Collector	114
Draw Down	163
Screen and Dynamite	12

The following applications were reviewed and acted upon in conjunction with other Commonwealth agencies.

Mine Drainage	248
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SAND & GRAVEL ROYALTIES

The Commission received during this fiscal period \$347,740 from ten dredging companies as a result of Act 225, which grants royalties to the Fish Commission on sand, gravel and other minerals extracted from the waters of the Commonwealth. This amount was an increase over the previous year.

PERSONNEL

The appointment of a PERSONNEL OFFICER in January loadened the Commission's ability to provide employees and supervisors with professional guidance and services in personnel administration and labor relations.

During the fiscal year the Section processed hundreds of personnel transactions such as salary changes, appointments and promotions and handled hundreds of employment inquiries.

In January the Section expanded its responsibility in labor relations, employee benefits and services, employment, training and management development, manpower management, and Affirmative Action.



Processing the monthly reports of the state's 1800 license issuing agents involves considerable bookkeeping.



The mail room staff handles a tremendous volume of mail; internal, from the Commission's field offices, inter-agency, and from the public.



Your summary of Fishing Laws & Regulations may be small—but handling the delivery of ONE MILLION of them is no small matter!

OFFICE OF INFORMATION

As part of the Executive Office, the Office of Information administers and coordinates the Commission's public information, conservation education, and training programs. News releases on 66 fishing and boating subjects were issued to news media throughout the state during the year, along with special INFORMATION KITS on trout, salmon, and safe boating to outdoor columnists. Weekly reports on fishing conditions were taped for several central Pennsylvania radio stations during the peak of the fishing season, while hundreds of requests from news reporters were fulfilled for detailed information on various Commission programs and activities.

CENTER CITY FISHING PROGRAM

More than 65,000 underprivileged youngsters in major metropolitan areas participated in the Commission's 6th annual "CENTER CITY CANE POLE FISHING PROGRAM." With the cooperation of city or municipal recreation departments, the kids fish in small ponds or lakes specially stocked with thousands of warmwater fish, using cane pole fishing rods provided by an anonymous donor and loaned by the Commission for the enjoyment of these novice anglers.

CONSERVATION EDUCATION

Most of the public appearances, lectures, and instruction in sportsmanship and safety in fishing and boating are conducted by Commission field officers. These CONSERVATION EDUCATION PROGRAMS last year included appearances before 80 elementary schools, 85 high schools, 45 church and service clubs, 10 youth groups, 1,130 sportsmen's clubs, 62 conservation associations, and 188 other groups. Field officers conducted 81 fishing schools for more than 6,500 people, 136 boating safety schools, 96 radio and TV programs and presented almost 300 slide lectures.

PUBLICATIONS

The Commission's major effort in keeping the public informed about Pennsylvania fishing and boating continued to be publication of the "PENNSYLVANIA ANGLER." Paid circulation of this unique magazine climbed steadily throughout the year, reaching an all-time record of 44,386 with the June issue. More than two million booklets, leaflets, brochures and posters were printed and distributed in response to growing number of requests for information on Commission programs, how and where to fish, and how to enjoy safe boating on Pennsylvania waters.

OTHER SERVICES

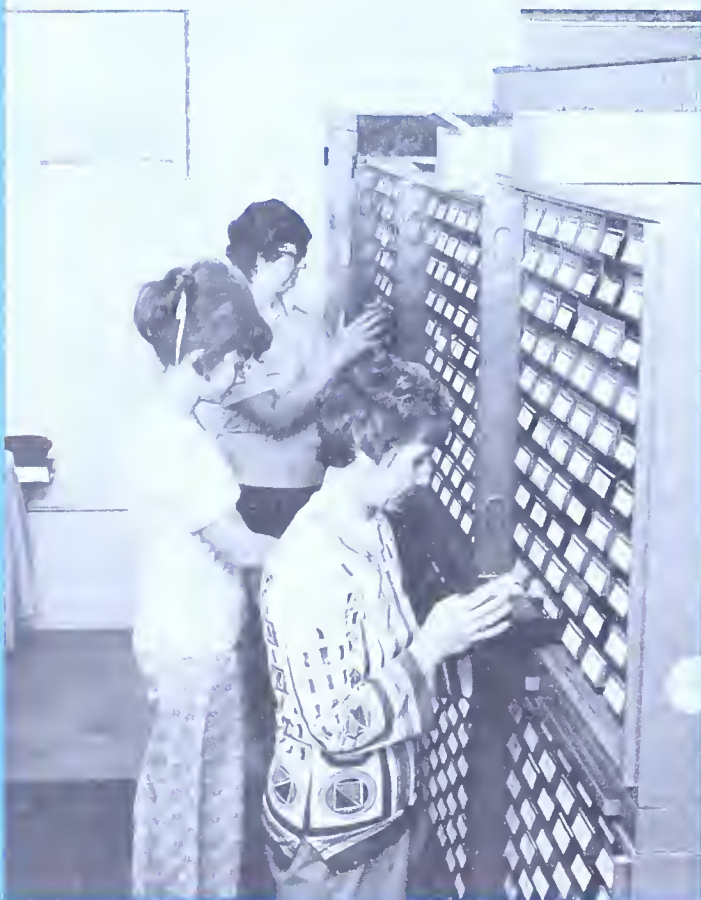
This Office, along with field officers and Regional Office, answered thousands of letters and phone calls from persons needing information on fishing seasons, laws and regulations. Employment of a STAFF PHOTOGRAPHER permitted, for the first time, servicing requests from outdoor writers and newspaper editors for photos on Pennsylvania fishing and boating. An EXHIBIT TECHNICIAN also started work on displays, exhibits and interpretive programs for visitor centers at the Linesville, Huntingdon and Pleasant Gap fish culture stations where more than 250,000 persons come to "see the fish" year after year.

ANNUAL REPORT photographs by Russell Gettig, Staff Photographer



More than two million booklets, leaflets, and other fishing and boating information brochures were distributed during the year.

The staff of the "Angler" circulation section keeps pace with the magazine's growth. New subscribers are being added to the files daily.



COMPTROLLER'S OFFICE

During the 1972-73 Fiscal Year the financial picture of the Fish Commission continued to reflect signs of increased concern as the higher cost of operations continued to take a heavy toll of the cash reserves. The available balance in the Fish Fund was reduced \$578,521.48 during the 1972-73 Fiscal Year. Several factors contributing to the higher cost of operations include the following:

1. Increased maintenance of the new facilities established under the Project 500 Bond Issue Program;
2. The high cost of fish food; and,
3. Spiraling cost of salaries and employee benefits as a result of the passage of Act 195, which provided most employees of the Fish Commission the right to collective bargaining.

There is, however, some justification for optimism relative to the Fish Commission's future financial picture due to the fact that on July 24, 1973, the Governor signed into law Act 47 which increased the fishing license fees as follows: Resident Fishing Licenses increased from \$5.00 to \$7.50, Non-Resident Fishing Licenses increased from \$10.50 to \$12.50, and 5-day Tourist Licenses from \$5.00 to \$7.50. It is anticipated that these license increases will add approximately \$1,900,000 to the Fish Fund annually. The increase in fishing license fees will not take effect until January 1, 1974, and the increased revenue will not be realized until approximately April or May 1974. These

additional funds will go a long way in assisting the Fish Commission in meeting its current financial needs in carrying out the present programs. It will not allow, however, for expanded or additional programs within the immediate future, due to the continuing effects of collective bargaining, inflation, etc., referred to previously.

During the 1972-73 Fiscal Year the Boating Fund expenditures increased approximately 27% over the previous fiscal year, while the receipts were approximately \$59,000 higher than the previous fiscal year. There was an overall operating increase in the fund of \$238,368.48 during the fiscal year.

EARMARKED FUNDS

The Fish Law provides for certain funds to be set aside for specific purposes.

Act 458, Session of 1963, provided for \$.50 from each resident and non-resident fishing license fee to be expended for research and improvement of fish habitat and for acquisition and development of access areas to fishing waters. In this past year 848,562 resident licenses and 39,492 non-resident licenses were sold. This established the minimum expenditures necessary of \$444,027 to meet Fish Law requirements. Actual expenditures were \$1,776,442 resulting in the Fish Commission spending \$1,332,415 more than the required minimum for these activities during the fiscal year.

The Project 70 Fund, a State Land Acquisition Project, was used for the purpose of acquiring access areas to fish waters. Out of the total allocation, the Fish Commission had expenditures and commitments totaling \$4,965,961.15 during the years 1965 to date.

The Project 500 Fund is a statewide bond issue established for the development of public outdoor recreation areas. During the fiscal year the expenditures and commitments amounted to \$2,844,007 bringing the cumulative totals for these activities to \$11,027,885 to date.

FISH FUND		JUNE 30, 1973
Amount Available for Commitment & Expenditure, July 1, 1972		\$3,653,804.66
Less: Prior Year Adjustment—Cancellation of Prior Commitments		157,874.65
Adjusted Amount Available July 1, 1972		\$3,811,679.31
Results of Operations—1972-73 Fiscal Year		
Total Revenue Received	\$5,873,190.78	
Less: Expenditures & Outstanding Commitments	6,451,712.26	
Net Operating Decrease		\$ 578,521.48
Amount Available for Commitment & Expenditure, June 30, 1973		\$3,233,157.83

BOATING FUND		JUNE 30, 1973
Amount Available for Commitment and Expenditure, July 1, 1972		\$1,196,173.43
Less: Prior Year Adjustment—Cancellation of Prior Commitments		85,678.91
Adjusted Amount Available, July 1, 1972		\$1,281,852.34
Results of Operations—1972-73 Fiscal Year		
Total Revenue Received	\$1,664,875.14	
Less: Expenditures and Outstanding Commitments	1,426,506.66	
Net Operating Increase		\$ 238,368.48
Amount Available for Commitment and Expenditure, June 30, 1973		\$1,520,220.82

The amount available is broken down as follows:

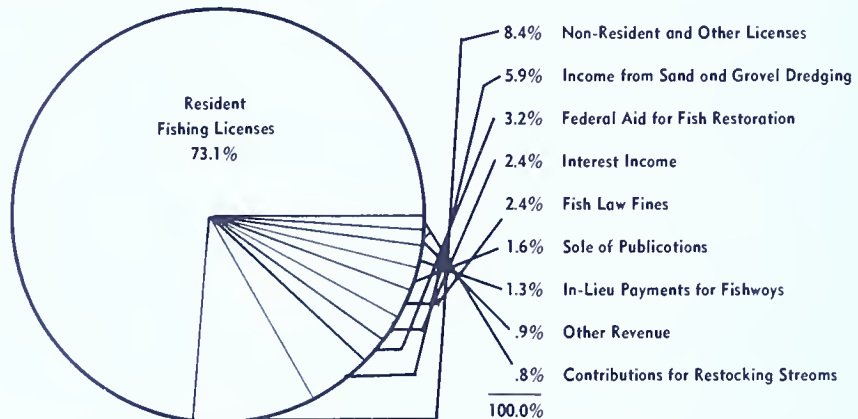
- (1) \$66,321.31 is reserved for operations of the Delaware River Navigation Commission.
- (2) The remaining \$1,453,899.51 is available for all other Boating Fund operations.

FISH FUND—REVENUE

Resident Fishing Licenses—Regular	\$4,158,199.35
Resident Fishing Licenses—Senior	138,560.00
Non-Resident Fishing Licenses	390,689.30
Income from Sand & Gravel Dredging	347,740.28
Federal Aid for Fish Restoration	188,953.78
Interest Income	142,959.42
Fish Law Fines	139,330.83
Other Licenses	98,691.50
Sale of Publications	94,386.72
*In-Lieu Payments for Fishways	75,000.00
Contributions for Restocking Streams	43,680.74
Other Revenue:	
Reimbursement for Project 500 Activities	20,932.52
Sale of Used Autos and Other Vehicles	16,300.00
Boat Mooring Permits & Other Miscellaneous Revenue	6,501.34
Emergency Employment Program	6,480.00
Rental of Fish Commission Property	4,785.00
TOTAL REVENUE	\$5,873,190.78

* Act 109, signed May 5, 1970, provides for erection of chutes, slopes, fishways, or gates at dams in waters of the Commonwealth to enable fish to ascend and descend the waters at all seasons of the year. The Act also provides for annual payments to the Fish Commission in-lieu of erection of such devices to offset the cost necessary to stock these waters.

FISH FUND REVENUE

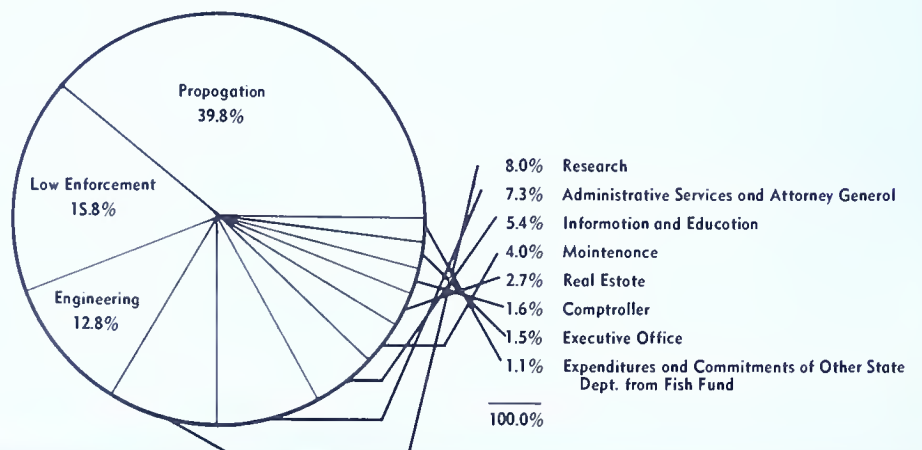


FISH FUND—EXPENDITURE & COMMITMENT BY ORGANIZATIONAL UNIT

Executive Director and Staff	\$ 95,668.22
Comptroller	100,453.44
Administration	458,182.02
Information and Education	348,612.94
Attorney General	14,464.33
Propagation	2,565,336.70
Research	517,749.85
Real Estate	175,456.78
Engineering	828,595.81
Maintenance	259,227.00
Law Enforcement	1,016,008.31
Fish Commission—General Operations—Total	\$6,379,755.40
Dept. of Property & Supplies—GSA Rentals	70,925.85
Treasury Dept.—Replacement Checks	1,000.00
Dept. of Environmental Resources—Payments—in Lieu-of-Taxes	31.01
TOTAL	\$6,451,712.26

Note: Costs have been established at an organizational level for two additional divisions, the Information and Education Division and the Maintenance Division, for the 1972-73 fiscal year.
A more expedient and comprehensive cost sharing system has resulted in the Boating Fund absorbing a more proportionate share of commitments and expenditures attributable to costs involving both the Fish Fund and the Boating Fund.
(For Fish Fund Expenditure & Commitment by Object Classification, see last page of this section.)

FISH FUND EXPENDITURES & COMMITMENTS BY ORGANIZATIONAL UNIT

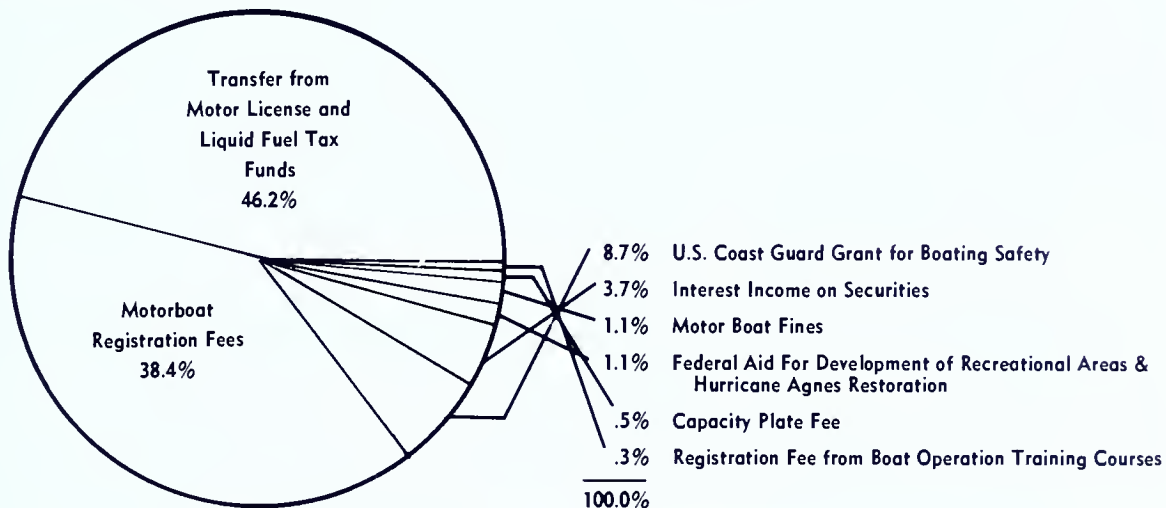


BOATING FUND—REVENUE

Motor Boat Registration Fees—Fish Commission	\$ 578,509.00
Motor Boat Registration Fees—Delaware River Navigation Comm.	59,859.00
*Transfer from Motor License & Liquid Fuels Tax Funds	769,194.72
Interest Income on Securities	62,107.08
U.S. Coast Guard Grant for Boating Safety	144,436.56
Motor Boat Fines—Fish Commission	17,550.00
Motor Boat Fines—Delaware River Navigation Commission	250.00
Capacity Plate Fees	8,816.84
Registration Fees for Boat Training Courses	5,184.00
Federal Aid for Development of Recreational Areas	10,496.90
Federal Aid for Hurricane Agnes Restoration—Delaware River Navigation Commission	8,274.25
Miscellaneous Revenue—Department of Revenue	196.79
TOTAL	\$1,664,875.14

* Act 65, Session of 1931, as amended March 12, 1957, provides for an annual transfer to the Boating Fund of the Fish Commission, the amount of the liquid fuels tax paid on liquid fuels consumed in the propulsion of motor boats on the waters of the Commonwealth.

BOAT FUND REVENUE

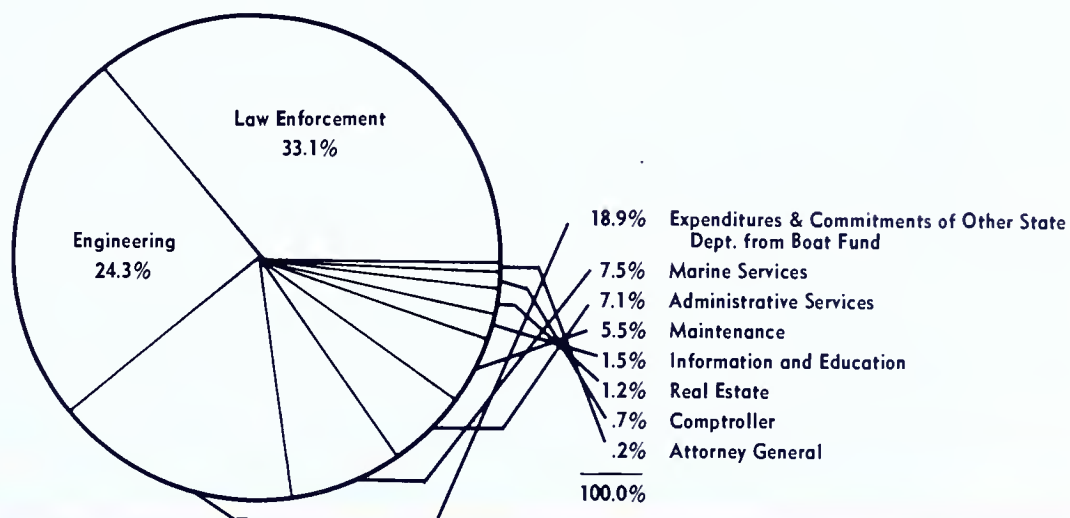


BOATING FUND—EXPENDITURE & COMMITMENT BY ORGANIZATIONAL UNIT

Executive and Administrative Services	\$ 102,118.89
Comptroller	9,318.80
Information and Education	21,696.92
Real Estate Division	17,796.64
Engineering	347,214.07
Maintenance	78,663.64
Law Enforcement	472,619.72
Marine Services	107,144.25
Fish Commission—General Operations—Total	\$1,156,572.93
Dept. of Revenue—Collecting Motorboat Registration Fees	159,090.54
Dept. of Property & Supplies—GSA Rentals	1,984.86
Dept. of Transportation—Delaware River Navigation Commission	108,858.33
TOTAL	\$1,426,506.66

(For Boating Fund Expenditure & Commitment by Object Classification, see last page of this section.)

BOATING FUND EXPENDITURES & COMMITMENTS



FISH FUND—EXPENDITURE & COMMITMENT BY OBJECT CLASSIFICATION

	1972-73
Salaries	\$3,223,086.09
Employee Benefits	516,829.78
Fish Feed	363,872.32
Printing & Postage	253,051.80
Wages	215,281.46
Maintenance for Buildings & Machinery	174,261.55
Equipment & Machinery	168,727.97
Buildings, fixtures, & capitol improvements	160,263.55
Heat, Water, Electric	159,015.40
Purchase of Autos & Trucks	157,127.06
Land Acquisition	140,166.31
Legal, Appraisal, & Consulting Fees	135,158.76
Automotive rental, repairs, & supplies	115,430.71
Travel	114,269.49
Telephone	76,628.74
Purchase of stone & concrete	76,052.71
Uniforms for Fish Commission Personnel	65,044.90
Payments to other State Agencies:	
Electronic Data Processing—Dept. of Environmental Resources	32,484.09
Auditing Services—Auditor General	20,444.57
Purchasing Services—Dept. of Property & Supplies	15,058.50
Reproduction & Mailing Services—Civil Service Commission	9,314.16
Checkwriting & Disbursement Services—Treasury Dept.	4,872.07
Rental of Real Estate	39,946.60
Office Equipment—maintenance, supplies	38,866.35
Rental of Tabulating Equipment & Xerox Equipment	26,900.15
Maintenance and other Supplies	20,008.81
Educational Supplies	16,105.09
Insurance on Autos & Buildings	12,133.61
Research Grant to Cooperative Fishery (Penn State)	10,000.00
Purchase of Fish	9,815.00
Office & Laboratory Furniture & Furnishings	9,537.80
Fish Commission—General Operations—Total	\$6,379,755.40
Replacement of Checks	1,000.00
Payments in-lieu-of taxes	31.01
General State Authority Rentals	70,925.85
TOTAL	\$6,451,712.26

BOATING FUND—EXPENDITURE & COMMITMENT BY OBJECT CLASSIFICATION

Salaries	\$ 478,928.58
Wages	93,662.20
Employee Benefits	62,644.82
Construction of Boating Sites and Facilities	259,127.40
Waterways & Automotive Vehicle Repairs, Supplies & Rentals	73,218.31
Purchase of Boating Equipment, Accessories, and Marine Apparatus	59,316.91
Purchase and Printing of Educational Supplies including State Pleasure Boating Course Program Booklets	54,285.30
Travel and Special Conference Expenses	20,244.76
Rental of Real Estate	19,230.15
Telephone and Telegraph	10,887.97
Payments to Other State Agencies:	
Auditing and Processing Services—Auditor General and Comptroller	9,389.93
Purchasing Services—Dept. of Property & Supplies	2,184.06
Electronic Data Processing—Dept. of Environmental Resources	2,040.59
Automotive Insurance	7,557.49
Office and Other Supplies	3,854.46
Fish Commission—General Operations—Total	\$1,156,572.93*
Collecting Motorboat Registration Fees	159,090.54
General State Authority Rentals	1,984.86
Delaware River Navigation Commission	108,858.33
TOTAL	\$1,426,506.66

* A more expedient and comprehensive cost sharing system has resulted in the Boating Fund absorbing a more proportionate share of commitments and expenditures attributable to costs involving both the Fish Fund and the Boating Fund.

The cost of General Operations in the Boating Fund showed a \$291,047 increase over last year's operating expenditures. The cost of salaries and employee benefits increased approximately \$190,000 resulting from the continuing impact of collective bargaining agreements. In addition, costs for the construction of boating sites and facilities increased approximately \$100,000. Construction of boating access site projects at Leetsdale, Allegheny County, and Kimmets Lock on the Lehigh River, Lehigh County, are highlights of these costs.

Fishing Outlook

continued from page 2

inal plantings in 1971, some of the tiger musky had grown to just under 40 inches by the fall of 1973. Look for a few tiger musky to come out of the lake this winter that will top the 40-inch mark.

Walleye are just starting to come into their own at Beltzville. During the summer and fall of 1973, regular catches of 17 to 20 inch "glass eyes" were reported by bait fishermen. If you are out for these, try smaller minnows—those 2 to 2½ inches long. The entire south shore is rocky and has the type habitat that walleye like. Try to fish in the 20 foot deep waters and suspend your minnow a foot or so from the bottom so that it may swim about freely.

Crappie fishing should be great this winter. Last summer, Bob Perry, Assistant Supervisor from Sweet Val-

ley, took 35 crappies that weighed a total of over 42 pounds. He fished tiny little jigs in a variety of colors and found the whites and the yellows to be best. Tip-ups, with 1 to 2-inch minnows, should do the trick now.

Not too much has been heard about the perch that were stocked in the lake. If they have the same rapid growth rate as the other fishes, we should develop a pretty good fishery for this species. Jigging rods, light leaders and "wee" jigs work other places, so they should work okay here. Try a perch eye on the jigs too.

Chain pickerel are just getting to be over legal size. Most of the pickerel caught through the ice last winter ran just about 16 inches; not too much meat on those. This year, some better than 20 inches should be caught. Use 2 to 3-inch minnows for these. Weed beds, not too plentiful in the lake, are the best locations. There's a good weed bed just developing right below the Preachers

Camp Access Area, on the south shore.

The original bed of Pohopoco Creek lies within Beltzville Dam. This was a fine trout stream and now there are some dandy brownies in the lake. More than a few trout over 20 inches are caught here each year. Salmon eggs, small minnows, or garden worms, are the best choices for bait.

Beltzville can be reached on Route 209 just north of the town of Lehigh-ton. Exit 34, of the Northeast Extension of the Pennsylvania Turnpike, is practically at the entrance to the park. Route 209, north toward Stroudsburg, provides access to the south shore of the lake. The north shore and the park office are located on a well marked road that heads up along the lake. You cross Pohopoco Creek right at the intersection of Rte. 209 and the Turnpike, then follow the signs up to the lake. It's just a few miles away.

THE ANGLER'S NOTEBOOK



by Richard F. Williamson

FISH FACT: Sound vibrations caused by an injured bait fish are easily detected by a predator fish and quickly distinguished from the vibrations caused by a small fish swimming normally through the water.

In buying bassbugs for use with the fly rod, or in making them, be sure there is enough space between the body of the bug and the point of the hook to permit the hook to sink firmly into the fish's bony mouth.

Streamers in big sizes, about size 6, are not the only effective ones. A streamer tied on a hook as small as size 10 is effective in water where the lure must be fished with a delicate hand. Some really large trout have been taken on little streamers.

Muddler minnows always are good trout lures. Try them also for small-mouth bass, which feed on natural minnows the Muddler imitates.

A fairly stiff rod, a casting reel, and a line of about 15 pounds test are essential in fishing water that contains lily pads, weeds, and underwater obstructions. A hooked bass or pickerel will instinctively make for such cover, and light tackle has a slim chance of keeping control of the fish.

Rubber bugs with white legs are excellent bluegill lures. They are available either as floaters, which lie in the surface film of the water, or as sinkers, which drop just below the surface. Such lures with white or gray bodies and white legs are easy for the angler to see, but all-black rubber bugs also are good.

Keep dead minnows out of your bait bucket. They contaminate the water and may hasten the death of healthy minnows.

Buster bass spend most of their lives in deep water, but when the pangs of hunger seize them, they move into shoreline shallows, weed beds, shoals, and around stumps and other obstructions in the water. There is where they find the minnows, crayfish, and insects on which they feed.

Spinning lures such as the Mepps, Abu, and Rooster Tail are most effective for bass in the smaller sizes, up to half an ounce.

Did a fly with its eye clogged ever get your goat? Sure it has, but the remedy is simple. Drive a large needle headfirst into a piece of wood and carry it in your fly box. With the point of the needle you can easily clear the eye of

the fly so that you can tie it on the leader.

A weed bed is made to order for pike and pickerel. The angler usually parks his boat casting distance from the bed and casts to the edge of the weeds. An equally effective method is to anchor the boat eight or ten feet outside the bed and make casts parallel to the edge of the weeds. Pike, lying in ambush for food, can easily spot a lure traveling along the outside edge of the vegetation.

Don't try to scoop up a hooked fish with a landing net. Hold the net in the water, with the top of the webbing just below the surface, and lead the fish into it. Don't try to use a gaff until the fish is subdued and at the surface of the water. Then drive the gaff into the body of the fish, in the belly area, with one firm stroke. Don't jab at the fish with either net or gaff.

Brightly colored lures should be used in deep water, where the absence of light makes dark colors—red and green, for example—hard for the fish to see.

Small minnows are the best live bait for crappies. When these fish feed on the surface, they will take the same flies that catch bluegills.

Tying a Partridge Spider

by Chauncy K. Lively

photos by the author



A shaded pool on Little Sandy Creek.

Endowing the wet fly with the illusion of life has long been considered a virtue to be sought after, whether it is to be achieved by manipulation of the fly in the water or by the use of materials in the construction of the artificial which give the impression of the struggling insect. W. C. Stewart, one of England's early pioneers of fly fishing, did not approve of "working" the fly and chose instead to allow the writhing, quivering movement of soft hackles, activated by the currents, to suggest life in the water. While today most anglers manually animate their wet flies, or allow them to drift naturally as occasion dictates, the value of water-impressible materials in sub-surface flies is universally recognized.

There is ample justification in nature for the use of soft, flowing hackles, especially when used in combination with shaggy body materials. There are several species of Ephemera, notably *attenuata* and *lata*, which emerge a few inches below the surface. Emergence from the nymph generally requires but a few seconds and during that time the drifting insect is a dynamic, ever-changing form, with body parts protruding in sequence from the nymphal shell. If emergence is successful the dun ascends to the surface, dries its wings in the air and flies away. But often the struggle of the insect to free itself from the larval case fails and it drifts hopelessly with wings, body and legs askew, completely vulnerable to feeding trout.

The PARTRIDGE SPIDER is obviously an evolution from the Stewart Spiders, but without the palmered hackle common to Stewart's, and, in sizes #16 and #18, it has not only fulfilled the requirements of sub-surface emerging nymphs, but has proved an effective general wet fly/nymph pattern. I first learned of the pattern from Paul Young in the 1950s and on several occasions I was privileged to watch the master angler use it with devastating results. Mr. Young often used the Partridge Spider as a point fly with a small black ant on a dropper and it was his contention that the ant stabilized the drift of the Spider, allowing it to ride at the proper level. I have used the pattern primarily as a single fly and it has produced well, both with actively feeding trout and with solitary fish lying in position.

Last September I had the fair fortune to catch two good trout of identical size (17½ inches), each from a separate stream and on outings two weeks apart. The first was a brown trout which was seen lying stationary over a gravel bottom in about eighteen inches of water. Crouching low on the bank, I floated several terrestrial patterns over him, dries that had produced well earlier in the day, but he didn't show a modicum of interest. Then I changed to a size #18 Partridge Spider with olive body, soaked it with saliva and cast it above the trout's position. I couldn't see the fly in the water but when I judged it was near the trout

I saw him turn slightly to the left, open his mouth and turn back. When I tightened he was on and we had a fine go at it before he was netted and released.

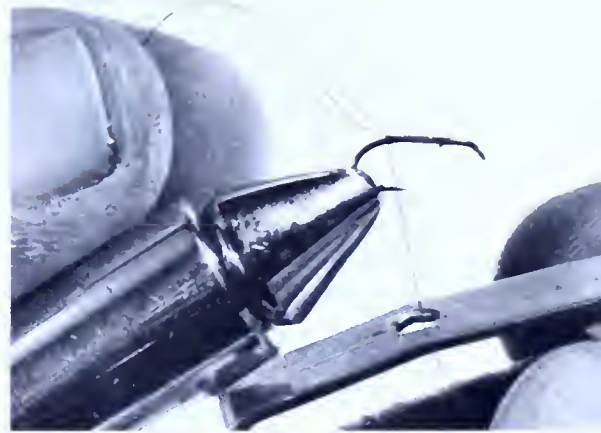
The second fish, a rainbow, was found in an almost identical situation and like the first, was tried initially with a dry fly without success. Again the Partridge Spider was attached and cast about four feet upstream from the trout. This time the angle of light was more favorable and I could see the tiny speck drift directly over the trout's head when he nearly performed a backward somersault to take the fly.

The Partridge Spider is quite easy to tie and even beginners will find they can dress a season's supply in short order. Originally the hackle specified was from European partridge or grouse, the export of which is now forbidden, but the small feathers from the throat or breast of our own grouse serve equally well. On the finished fly the hackle barbules, when stroked backwards, should extend just beyond the outside of the hook's bend. If the barbules are too long the tips may be trimmed without ill effect. To dub the coarse seal's fur, a tacky wax should first be applied to the thread and the fur worked loosely around it between the fingertips. The finished body should appear rough and if the ribbing over-compresses the body, pick out the fur a little with the bodkin point. Best body colors are olive, yellow and brown.



◀ 1. Fasten a size #16 or #18 wet fly hook in vise and bind tying thread to shank well behind eye.

2. Lay the end of a 5" length of gold ► wire along shank and bind to hook with close turns of thread, working toward bend. Half-hitch at bend.



◀ 3. Wax about 2" of the thread next to the hook and apply a dubbing of seal's fur (olive, yellow or brown) by spinning between fingertips.

4. To form body, wrap dubbed thread ► forward and tie off with a half-hitch behind eye, allowing space for hackling and head.



◀ 5. For ribbing wrap the strand of gold wire over dubbing in spaced turns in a counter-clockwise direction, tying off at fore end of body. Trim or break off excess wire.

6. For hackle, select a small mottled ► brown grouse throat or breast feather and strip the waste from the root at the lower part. Hold the feather vertically and bind to hook in position shown. Trim off excess root.



◀ 7. Clamp hackle pliers to tip of feather and make 1-1/2 turns. Tie off and trim away waste hackle.

8. Hold hackle fibres back along hook ► and build a neat head with thread. Whip-finish and apply lacquer to head. This completes Partridge Spider.



CO-OP NEWS

by Bill Porter

A monthly feature devoted exclusively
to Pennsylvania's Cooperative Nurseries—

*Cooperative Nurseries are fish rearing facilities
built and maintained by organized sportsmen
... at their own expense.*

*Fingerling fish provided by the Pennsylvania Fish
Commission are reared and released in public
waters of the sportsmen's choice
in accordance with policies prescribed by the
Fisheries Division's Cooperative Nursery Branch,
Robert H. Brown, Chief.*

"**Q**UITTAPAHILLA"—if you can pronounce it, you are a member—if you can spell it, you are an officer! Now that may be a rather bad joke about this Lebanon County cooperative nursery, but there is no joke about the fine trout they raise and the problems they have overcome to stay in business.

Historically, two prospective sites were placed under observation in mid-1971 and in the fall of that year the Shirk Spring source was approved as a cooperative nursery. Anxious to get started, the Quittapahilla Rod & Gun Club purchased commercial fish rather than wait the required year to receive Fish Commission fingerlings. The members stockpiled materials for construction of a second nursery as soon as another site would be approved. This construction began in late 1971 and was ready in early 1972. Cold weather did not seem to slow down the workers.

Time out in the history of the club is needed at this point to discuss some of the unique construction features of one of the raceways. Railroad ties formed the walls and strong points of the construction and this was not particularly different from some other nurseries around the state. What made this one different was the aluminum lining on the inside—trout side—of the ties. The metal produced a smooth surface, seemed easy to clean, and to all intents and purposes, was an adequate material to use if available.

The along came *Agnes* and Nursery #2 vanished in the swirling, debris-filled waters. In spite of the shock and anguish, the club members rallied their forces and began the necessary restoration and repairs.

More problems followed the flood. The two and three-year old fish developed a fungus infection but responded to a formalin treatment and five days of terramycin pellets. In April of 1973, the condition had vanished and the members particularly

appreciated the efforts of Stanley Bechtol of the Fish Commission for "nursing" the big fish through their problems.

Then in July of 1973, another flash flood struck, covering the raceway with high water, silt and debris. The conditions existed for about half a day with the result that about 1,500 of the population of 4,000 brook trout fingerlings paid the price. Again the club members reacted positively to the situation and the raceway is still in production.

One more problem: "Popeye" appeared, pointing up a water quality problem. Tests were made and the nitrogen content of the water was

too high and had to be corrected. So before the warm summer weather of 1973 began, the club purchased a "minnow saver" type aerating device and installed it at the head of the raceway. The problem seemed solved for the moment and all systems were again "go."

Joe Waybright, president and nursery manager of the Quittapahilla Rod and Gun Club, felt positive about the success of the project and the quality of fish stocked. He indicated that the club had about 225 members registered within the first six months of the membership year and that the nursery was a drawing card for many of the sportsmen.

Stocking is done in the stream that receives the overflow nursery water, but the bulk of the fish are placed in Baughman's Run. The entire length of this stream is open to public fishing and is ideally suited for cooperative nursery stocking activities. It should be mentioned that the club was not just content to stock the stream but with proper approval, they also did some stream improvement work to better the habitat for the fish.

The particularly attractive setting of the nursery, minus the evidence of the flood damage, visible at the time of our visit is a two-fold thing. Club members maintain the nursery in an efficient manner and the property owner has an appealing rolling lawn and stone house with appropriate landscaping as background. James Karsnitz, incidentally, is the property owner and has given the organization a verbal agreement to use his water source and land. Jim is also an active member in the club and we would suspect that this doesn't hurt the organization a bit.

The Quittapahilla Rod and Gun Club cooperative nursery is progressing favorably and looking forward to its third full year of operation with several thousand yearling and hold-over trout to add to the area's waters for the 1974 trout season.

Joe Waybright, club president and nursery manager, brushing screens at lower end of first section of raceway. Pipes serve as supports in this position, and as locking devices when screens are lowered.



BOATING

Questions & Answers

by Capt. Jack Ross

From D. E. L., Braddock:

"On a recent trip to Florida I looked at a used 28-foot sailboat, built by Abbot Boat Works, with a fiberglass hull and all equipment, at a very attractive price. Could you tell me if this is a well-known boat, and if this is a popular make?"

—None of our listings include the name, and none of our sailing friends has ever heard of Abbot. There are a good many small custom boatyards, however, and this could be a very good or very poor boat. I suggest you ask your insurance company to recommend a good surveyor in Florida who does a lot of sailboat work. For a reasonable fee, he will give you a complete written report and appraisal, which will tell you more about the boat than you could discover on your own in a month of Sundays.



From R. K. B., Waynesboro:

"Do you have any idea where I could get parts for a 15-hp Majestic outboard motor? I wrote the factory in Minneapolis but the letter came back."

—Majestic engines were built by Champion Motor Co., Minneapolis, which has been out of business for at least ten years. Parts are reportedly available from Swanson Outboard Service Co., 5215 Lakeland Ave., Minneapolis, Minn. 55429.



From M. M. S., Canonsburg:

"My family has a very old photograph of a riverboat that my great-grandfather worked on as engineer. The name of the boat appears to be 'Ida Reese,' although the last part of the name is almost unreadable. Can you tell me anything about this boat?"

—The "IDA REES" was one of the earlier packet boats also equipped with towing knees. She was built in Pittsburgh in 1863, and measured 155 feet in length, 30½ feet in breadth, and had a draft of 4½ feet.

She was owned by Capt. James Rees & Co., Pittsburgh, and Capt. James Brown of Manchester was the master. The vessel was powered by two single-expansion steam engines with 13-inch diameter cylinders and a five-foot stroke, and of course was a sternwheeler. She made at least one trip up the Allegheny to Oil City in the spring of 1864, and came out with some 2,700 barrels of oil for the Union Army. The IDA REES ran in the Ohio and Mississippi river trades for almost ten years, and was finally lost on the Brazos River in Texas on Feb. 28, 1873, while enroute to New Orleans with cotton. These were the days of wooden boats and iron men. According to one old river captain I know, it's just the opposite today!



From T. G., Narberth:

"What is a 'clear view screen' and how does it work? Could I install one on a small cruiser?"

—A clear-view screen is a disc of heavy plate glass in a ball-bearing frame, driven by a high-speed electric motor. These screens are set into the centers of wheelhouse windows on most large ships, and the spinning action keeps them clear of even the heaviest rain or snow by centrifugal force. A smaller, 10-inch diameter model is available for pleasure craft and smaller boats, offered in a choice of voltages. A clear-view screen is much more effective than windshield wipers in every condition except fine salt spray on a sunny day, when the glass quickly becomes clouded with dried salt.



From G. M. R., Pittsburgh:

"My drag boat is equipped with dry exhausts, and makes a good bit of noise. I have been warned by a Waterways Patrolman that I have to have mufflers or a wet exhaust. I use the boat both for drag racing and for water skiing, and I have been told that it would be impossible to put on either mufflers or wet exhausts; what can I do?"

—If you have dry stacks, there's nothing impossible—or even difficult—about installing mufflers. You will have to purchase a good set of short-style mufflers of the type sold for high-performance cars, then have some heavy tubing fabricated to connect them to the flanges on the exhaust manifolds. This is admittedly somewhat expensive, but then a drag boat is not exactly a poor man's skiff, either.



From J. J. M., Sewickley:

"Since the new F.C.C. regulations came out, all of the towboats and locks are using Channel 13, but the Marine Operator and distress calls are still on Channel 16. How in the world can you keep track of what's going on without buying two radios?"

—There are several ways. A number of new FM radiotelephones have a dual-channel receiver position that permits you to listen to both 13 and 16 simultaneously; another solution is to buy an inexpensive monitor receiver with one crystal-controlled channel, available at any electronics store. The locks, by the way, are still monitoring Channel 16, so the necessity for a pleasure boat to listen to Channel 13 is really not pressing.



From P. D., Butler:

"Our boat club is planning to build a ski jump to be installed on the Allegheny River. Do we need any permits?"

—You certainly do. Application must be made on the Pennsylvania Fish Commission's Waterways Division Form #WS-256a. This is then reviewed by the U.S. Army Corps of Engineers, Pittsburgh District, and the Second Coast Guard District. You will need detailed drawings showing the construction of the ramp, the method of mooring, and its exact location. Also, the ramp must be lighted at night with a flashing white light visible one mile.

FISH TALES



RICK HATCH, 11, of Phillipsburg, N.J. caught this beauty, a 25 $\frac{3}{8}$ -inch, 6-pound American Shad while fishing the Delaware River in Warren County. He made the catch last May.



SCOTT JOHNSEN, 13, of Blue Bell, caught this nice 17-inch, 2-pound brook trout in Mud Run, Carbon County, last June. He was using a fly rod and a G. L. Evans Muddler and earned his Citation.



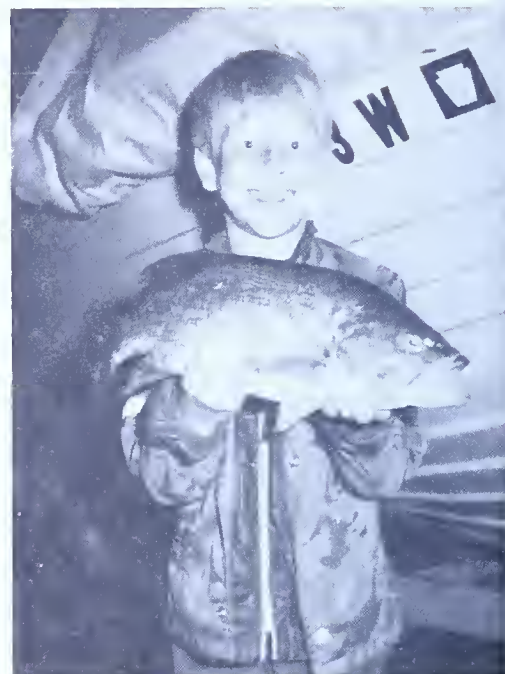
This young lady, SUSAN WAGNER, 9, of Greenville, was fishing Pymatuning Lake last July when she landed this 28-inch, 7 $\frac{1}{2}$ -pound carp. She was using a bamboo pole and a worm.



GEORGE EMERT, 10, of Monaca, holds his 27-inch, 6 $\frac{3}{4}$ -pound walleye taken from Pymatuning Lake in May. He made the catch using spinning gear and a home-made minnow harness.



DALE YODER, 12, of Davidsville, caught this nice 18 $\frac{3}{4}$ -inch, 3 $\frac{3}{4}$ -pound largemouth bass from Shawnee Lake in Bedford County last June. It hit a plastic worm and earned Dale a Citation.



Happy JAMES BROWN, 10, of Wesleyville, holds his 20 $\frac{1}{2}$ -inch, 4 $\frac{1}{2}$ -pound smallmouth bass taken from Lake Erie last June. He was using spinning gear and earned his Angler Citation.



An Erie angler, DENNIS POWELL, also shows a smallmouth bass—21-inch, 4 $\frac{1}{4}$ -pounds—caught in Fairview Gravel Pit, Erie County, in July. He was spinning with a rapala.



DAVID DEPPEN, 15, of Halifax, displays the 28 $\frac{1}{2}$ -inch, 7 $\frac{3}{4}$ -pound carp caught in the Susquehanna River, Dauphin Co., last June. He used spinning gear and a worm to lure his prize.



Angler ED GAMBLE, of Myerstown, caught this nice 18 $\frac{1}{8}$ -inch 2 $\frac{3}{4}$ -pound crappie from Stracks Dam, Lebanon Co., in March '73. He was using spinning gear and a minnow.



Another young angler, DAVID WHITE, 9, of Albion, holds his 31-inch, 13 $\frac{1}{2}$ -pound, channel catfish taken last May from the mouth of Elk Creek, Erie County. He was using worms for bait.



RANDY BRIGHT, 13, of Indiana, landed this 34-inch, 11-pound musky at Pymatuning Lake last April. It hit a dough-ball and earned him a Junior Citation and a Husky Musky Honorable Mention.



8-year-old CHRIS COVERT, of Renfrew, caught this 26-inch, 5-pound northern pike while fishing Glade Run Lake, Butler County, last June. He was using spin gear and a chub when it hit.



PAUL EULNER, 5, of Little Silver, N.J., proudly holds his 14-inch, 1 $\frac{3}{4}$ -pound brook trout caught in Pocono Creek, Monroe County, last May. Paul earned a Junior Citation for his catch.



An Erie youth, THOMAS ELY, 10, holds his 27-inch, 7 $\frac{1}{4}$ -pound channel catfish caught last May at Erie County's Walnut Creek Access area. It hit a nightcrawler and Tom earned an Angler Citation.



ANDREW HILLA, 15, Swoyersville, caught two Citation size trout—an 18 $\frac{3}{4}$ -inch, 3-pound rainbow and a 17 $\frac{3}{4}$ -inch, 2 $\frac{3}{4}$ -pound brown trout at Harveys Lake on the first day of trout season.



DAVE REISCH, of Camp Hill, was fishing the Susquehanna River, Cumberland Co., when he caught his 30 $\frac{1}{2}$ -inch, 18-pound carp. He was using hellgrammites for bait. Another Citation winner!

TAKING A CLOSER LOOK

by Tom Fegely

ALL IN THE FAMILY

Ask any angler to think back to his first fish and chances are he will say it was a sunfish or bluegill. Show that same fisherman a stringer of panfish today and most likely they will also be described as "sunfish and bluegills." Actually few anglers can separate the eight or so species of "sunnies" that inhabit our Keystone waters. Due to the close resemblance to one another plus their wide-spread hybridization, identification is indeed a difficult, sometimes impossible, task for any angler.

The larger members of the sunfish family (*Centrarchidae* to scientists) are quite easy to distinguish from one another and differ not only in appearance but in size and sporting quality as well. These are the black basses (largemouth and smallmouth) and the crappies (black and white). The *true sunfishes* include the ROCK BASS, WARMOUTH, PUMPKINSEED and BLUEGILL, plus the REDBREAST, GREEN, BLUESPOTTED and LONGEAR SUNFISH.

Probably the best "fingerprint" for verifying a particular species is the bony projection, or "ear flap," at the rear of the gill cover. As shown in the illustrations, minor differences in each of these "flaps" give the clues needed to separate the sunfish from one another. Although coloration is also a clue, it is seldom reliable since it varies widely in different waters.

The pumpkinseed and longear both have red on their gill flaps. The common pumpkinseed, however, has a pointed pectoral fin and wavy blue lines on the cheek. The longear does not get as big (maximum length four inches) and is a rarity in Pennsylvania, being found primarily in Lake Erie and the Allegheny River drainage. The warmouth, found in the same waters as the longear, superficially resembles the popular "goggle-eye," or rock bass—right down to its red eye. The main feature to distinguish the two is not in the gill markings, but in the number of spines on the anal fin. The rock bass has six, the warmouth four.

The bluegill, green sunfish, blue-spotted sunfish and redbreast sunfish all have black gill flaps and typically all are generalized as "bluegills." The redbreast sunfish's ear is long and narrower than the eye. The blue-spotted has a black spot on a relatively short gill flap and the green is distinguished by its heavy lips and a black gill-cover spot edged in white toward the rear. The true bluegill has a broad, black ear and a dark blotch on the rear of the dorsal fin.

SIMILAR ECOLOGICAL HABITS

All members of the sunfish family are spring to summer breeders and some spawn more than once in a single season. Like their larger cousins, the bass, male sunfish are the nest builders. Although some are solitary, many spawn close together as evidenced by the saucer-shaped cavities found along the shores of a summer farmpond or lake.

The sunfish are relatively short-lived, having a lifespan of about five years, although some do live longer. Sexual maturity is attained in one or two years which accounts for the catastrophic overpopulation of so many farmponds. Not only do the abundant three-inch bluegills or pumpkinseeds make for poor fishing but, in their competition for food, they prey upon the eggs of other larger gamefish inhabiting the same waters. This is why year-round fishing, liberal creel limits (50 in Pennsylvania), and no size restrictions are instituted by most state fish agencies.

Sunfish are carnivorous—feeding on aquatic insects, crustaceans, small minnows and snails. Worms, crickets, artificial flies, poppers and small spinners are all used for taking these panfish.

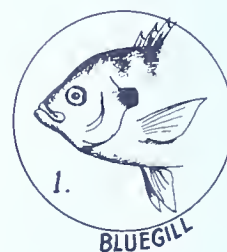
CONFUSION OF NAMES

Not only do appearances of sunfish confuse the angler but nomenclature doesn't help much either. Take, for example, the pumpkinseed. There are no less than 70 names—some local, others regional and many incorrect—for this common fish. Go South and the bluegill becomes a "bream" (pro-

nounced "brim"). The rock bass in some localities is a "red-eye," "red-eye bass," "sun perch," as well as the oft-used "goggle-eye." The redbreast's yellow sides and bottom also account for the title of "yellowbelly" by some anglers. The green sunfish is known as "green perch," "rubbertail" or "creek sunfish" in many areas of the country.

Despite the threads of confusion surrounding sunfish, this popular family continues to interest all who own a rod and reel. Perhaps some day an alert congressman will nominate one of the "sunnies" as our national fish. Besides being native only to North America, they give enjoyment and peace of mind to millions of kids from three to 93.

It seems that no one ever outgrows the fun of "sunfishing."



Judy Minnich, of Coopersburg, lifts a hefty "goggle-eye" taken from Pine Creek. Red eye distinguishes rock bass from other sunfishes.



Author's son Andy, 3, examines his first fish—a pumpkinseed "sunny."



The sunfish family is native only to the North American Continent. They are similar in shape and size, but individual species are often confused with one another. Except for rock bass, the best clue to identification is the size, color, and shape of the "ear flap."



"Ear flap" of bluegill: Broad and short; black to deep purple color.





TAMARACK LAKE

Photo by EDWARD T. GRAY

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THERE IS HOPE FOR THE FUTURE



In the past few months, we have alluded to some of the problems that have been suddenly thrust upon us—fuel shortages, increasing costs, and a myriad of other problems that accompany the energy crisis, material shortages, complex governmental regulations, and continuing inflation. Compared to the “Age of Affluence,” which to a new generation came to mean *normality*, 1974 is not going to be an easy or a comfortable year.

Without being accused of just whistling in the dark, we will admit that we are in for some novel experiences which will call for unparalleled use of talents that we hope have not become too rusty: *flexibility, ingenuity, creativity, and common sense.*

Perhaps one of the helps we can turn to is the university. The nation's leadership has regularly turned to universities in every major crisis in recent American history. They unlocked the secrets of atomic power and became a key factor in the World War II defensive effort . . . yet today they are somehow idling.

The Fish Commission's official relationship with universities is through the Cooperative Fisheries Unit at the Pennsylvania State University. As a result of recent meetings with that unit, we are looking forward to new unit objectives which will be of ultimate benefit to the Fish Commission and certainly to the sportsmen who enjoy our resources. In summary, the new objectives will be:

- a. *To conduct research relevant to Commonwealth and national aquatic and fishery resource needs, including production, utilization, and management of fish and to disseminate these results through appropriate communication media;*
- b. *To strengthen the professional training of aquatic and fishery scientists at the Pennsylvania State University;*
- c. *To contribute to the continuing education of aquatic and fishery resource workers.*

That is the trend of the Fish Commission's approach to the use of universities—yet we hope that there is a clear mobilization of total university resources to once again respond to the larger needs of the nation. So long as such fundamental, technical, scientific, economic, and social issues need answers, the universities should be recharged as a national resource. We hope that they will be pushed into the search for answers to deal with the shortages of food, energy, and other necessities on a worldwide scale.

We believe the resource is there. A coordinated push by governmental agencies, state and national, together with corporate leadership, those who live with the problems every day, should be able to find and use the creative potential that is there.

RALPH W. ABELE
Executive Director

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FRONT COVER: An ice fisherman begins the warming chore of cutting holes on Parker Dam, in Clearfield County. Photo by Russell Gettig, Staff Photographer.

BACK COVER: Edward T. Gray photographed French Creek, near Cambridge Springs, in a typical winter setting.

JAMES F. YODER, Editor

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Panfish are the star performers for the early morning ice fisherman. Take along a variety of baits—you can never tell what "today's favorite" might be!

Fishing Outlook

by Stan Paulakovich

YESTERDAY IT APPEARED that winter might hang on forever; today there is a change. One day of sunshine and the Old Man Winter's icy grip begins to melt slowly away.

The winter trout season closes at midnight on the 20th of February. At the beginning of the season, when first ice was clear and strong, trout catching was consistent. After a steady parade of cheese, salmon eggs, minnows, and worms, the fish have grown wary. Catching them now is *tough!*

During the latter part of February, however, and into early March, fishing for other species picks up. Among those that hit better as the ice grows "old," are bluegills and yellow perch. There is hardly a body of water in the state that does not have both perch and bluegills in it and they won't suffer from over-harvesting. Other than some ice fishermen, few go out specifically to catch them. They don't have to be huge to provide good sport and eating pleasure.

Perch are among the early spawners. When the water shows the least bit of a warming trend, the perch grow restless and begin to prepare for the big event. Look for them now in waters around ten feet deep. When you catch one, it's a good bet that there are others nearby. Tip-ups with small minnows for bait are a good start. Spread the tip-ups out a good distance apart. When you have action on one set, move some of the others closer.

If you start to catch small perch, five—six inches long, save a couple and throw the rest back. These are too small to eat but will come in handy for bait. Commercial netters like a nine-inch fish on the average

for their catch. This is a nice size for fillets. If you consistently catch small fish from one area, move into water that is deeper.

Start fishing a foot from the bottom; if there is nothing doing at this level, move up a couple of feet. when you catch a few nice sized perch from one hole, try jigging in a nearby hole. Perch eyes, or belly strips, ¼-inch wide and two inches long, cut from the perch you saved, are the best of baits. Attached to a small jig or lure, one bait will last a long time and catch many fish when they are hitting well.

Perch have a reputation of being one of the best of eating fishes. They deserve it. But no matter what the fish, the secret in preparation is freshness. Perch fillets, covered and deep fried, or just the fillet broiled with butter and a whisp of lemon, and seasoned to your taste, mean only one thing . . . MORE! When you're figuring out how many to fillet, allow two fish for every member of the family. You will be wishing for more when these are gone.

These zebra-striped rascals are bait stealers of the first degree. When they feed, they pick, pick, pick—all the time. It doesn't take them long to grab a minnow, run with it, stop to turn it and pluck it off the hook clean as a whistle. Make sure you use light leaders; two or three pound test is enough. Small hooks are necessary; number 10 is ideal. Perch take a minnow crosswise in their mouth and run just a short distance. Don't give them too long, when they pause, or you will retrieve a bare hook!

The big bodies of water like Pymatuning, Presque Isle Bay, Youghiogheny Reservoir, Glendale Dam,

Bluegills, strangely, seem to become more active later in the day, but they are as unpredictable as the weather! You can expect action from these rascals anytime!



Wallenpaupack, Shawnee and Harveys Lake are all good perch waters. Kinzua Dam, difficult to fish because of the fluctuating water levels under the ice, has some great perch fishing in the protected coves. All the lakes and ponds in the northeast section of the state have perch in them. Wayne and Pike County waters are tops for winter perch fishing.

Fishing for bluegills under the ice involves a different strategy. They have mouths shaped like little letter "O"s and when you take one in the summer on a hair bug, you wonder how it got that big bug into such a tiny mouth!

With that wee mouth, bluegills have a smooth feeding method. They glide up to your bait and hover a few inches away, glaring at it. When they decide it's good to eat, they gently and quickly "*inhale*" it. At the feel of the hook, the leader, or a wrong taste, they just as gently (but twice as fast) "*exhale*" it. That whole action takes place in the wink of an eye and barely moves the rod tip. Brother, you have to be quick or he's gone!

As if those things aren't enough to overcome, bluegills have another habit that endears them to fishermen. They get used to the bait or lure and stop hitting. In the summer, this is no problem. You change flies, or the color of your popper, and you're back in business. Or move down the pond a dozen paces or so, and the bluegills there will cooperate for a short while.

On the ice you have two alternatives: move to another hole, which is hard to do after you have found the fish; or, put on a different color lure or bait.

Tip-ups are no good at all for bluegills. They're not sensitive enough. You need a jigging rod with a real fine tip, or one with a wire extension on it. The wire extension should be 4 to 5 inches long. It should be stiff enough to avoid bending—yet it must be sensitive enough to reflect the delicate inhaling of the bait.

Bluegills don't bite very well at the beginning of the ice season; those caught are the smaller ones. By mid-February and on into "ice-out," the bigger ones begin to move. This is when the nice catches are made. From six inches long, and larger, are the size to take home; they're nice and chunky and there's a pretty good fillet on each side.

Use the smallest ice jigs you can find. Most of the commercial ones look like miniature spoons and have a size 10 to 12 hook. Add a piece of garden worm, mousey grub or meal worm to this lure, and jig them gently; only several inches up and down, just that little bit of motion is enough to make the bluegill grab it before it's gone.

Take along a selection of different colored lures so you can change when the action slows. White, silver, and gold, are favored colors. Sport stores and bait shops are now starting to get in a supply of meal worms and grubs for their ice fishing customers. Up around Scranton, the bait shops sell a small white grub with a black head that works like magic on bluegills. If your dealer doesn't have meal worms or grubs, try a pet shop. They have meal worms that are used for tropical fish food. They work equally well for bluegills.

Taking A Closer Look

BY TOM FEGELY

SCENTS and "SENSE-ABILITIES"

SOME of my fondest boyhood memories are of nights spent along the lower Delaware fishing for channel cats, carp, eels and suckers. My companion was Mark "Jesse" Kemmerer, a man four decades my senior, who shared with me his years of angling experience.

One night I recall having sampled some molasses-rich carp bait as Jesse was decorating a #4 hook with a gob of rank chicken innards. On two other lines we impaled several nitecrawlers. I questioned the use of this variety of baits and Jesse explained simply that the night-biting fish we were after "*smelled*" their way about on the river floor. If they happened to come across a current carrying the scent of our offerings they could locate it in the black waters by "following their noses."

If nocturnal fishes had to rely on sound and sight for their food, many of the bottom dwellers would starve. Whenever one or two of an animal's sense systems are less important in its environment, others become highly developed. Smell, taste and touch, therefore, are of extreme importance in watery environments where, even under the best conditions, sight may be limited to only a few inches.

Fish have a nose which functions much like our own. Nasal sacs, housed in bony capsules atop the head or on either side of the snout, open to the water through small nostrils. These nostrils allow water to enter, flow across the sensitive pleated linings, and leave. The "pleats" increase the surface area of each sac and vary in sensitivity from one species to another. A pike, for example, has a poor olfactory sense and is not interested in unseen food whereas an eel is just the opposite. Food placed in a bag and lowered into a tank containing eels will arouse them as the juices diffuse through the water.

Catfish are especially sensitive to odors in water which accounts for their abilities at nocturnal forag-

ing. Their "whiskers," called barbels, probe the bottoms and wave about in the currents picking up odors. Carp and sturgeon also have barbels and like catfish and suckers, have taste buds over their entire body. A bullhead will "taste" food held near its tail before whirling and taking it into its mouth. Taste buds in the mouth and throat are relatively unimportant since most fish simply gulp down their meals, allowing little or no time for tasting once the food has been taken.

Searching for food isn't the only way that fish use their senses of smell and taste. Investigations involving salmon show that certain creeks and streams emit characteristic odors which are remembered by migrating salmon and used in the spawning run to their birthplaces. Coho salmon are so remarkably sensitive to odors that water rinsed over human hands will repel them from ascending a fish-ladder.

Minnows, too, possess remarkably acute taste-smell senses and use them in a most unique way. If a minnow becomes injured, it gives off a "fright odor" which warns others in the school and sends them fleeing, so as not to be around when this same scent attracts undue attention from a predator.

Since the pike family—northerns, pickerel and muskellunge—rely primarily on sight and sound for capturing prey, they are not likely to scent an approaching school of minnows. The wary minnows, however, could possibly "smell" the pike and flee or cease activity until danger has passed.

Other cold-blooded animals also have this amazing ability to smell and taste from a distance. Tadpoles, aquatic salamanders, turtles and snakes use smell in locating food. Water snakes will find and eat dead fish even when their vision is clouded by the shedding process.

Snakes have a unique way of tasting. The flicking tongue of a snake samples the air for odors and chemicals. The tongue, however, does not actually taste but instead carries the stimulus to the "Jacobson's organ" in the roof of the mouth. Here, interpretation takes place. The function of a snake's tongue is similar to that of a boy's finger dipping into the chocolate icing on a cake. The finger aids in tasting only by carrying the flavor to his tongue's taste buds.

Nighttime anglers frequently take advantage of the well-developed tasting and smelling abilities of catfish, suckers, carp and eels. Since fish do not necessarily "enjoy" a taste or odor, the sweetness of a doughball, the stink of a hook-full of chicken innards or the attraction to such baits as marshmallows, cheese, rotten or blood-soaked meat, or strips of belly from other fish are commonly used. Just because a line is rigged with a "stink bait," doesn't mean that a carp won't hit it nor that a catfish won't take a sugary, tasty doughball.

Anglers often marvel at (or curse) the mysteries that control whether or not fish bite at a particular time or place. The many scents that influence the behavior of fish may just have something to do with it.



Above: In freshwater fishes, the nostrils are often situated on top of the head—some distance from the mouth.

*

Above right: Eels feed on a wide variety of animal matter and nightfall finds them poking their pointed noses into crevices in search of odors which will indicate food.

*

Right: The distinctive "whiskers" (barbels) of catfish are ultrasensitive to odors in bottom water currents.

*

Below right: The forked tongue of a snake is used to pick up odors and carry them to a sensor in its mouth.

*

Below: The rear "soft" undersides of the crayfish and its odor-sensitive covering enables it to locate dead fish and other carrion on the bottom of streams and rivers.





*Pennsylvania's
Pocono Mountains
are a virtual
"Land of Lakes,"
providing a brand
of ice fishing
unsurpassed
anywhere!*

FUN ON ICE

"Pocono Style"

by Tom Fegely



John Boos unhooks a "keeper" pickerel for Homer Fegely.



A triple trophy: a pickerel, a large and a smallmouth bass were the reward for this fisherman at Peck's Pond.

OF ALL THE TYPES of fishing to keep an angler occupied throughout the year, there's nothing more welcome to a dyed-in-the-wool ice fisherman than word that its "ice-up" time on his favorite lake. And, unlike solo jaunts during the spring to fall seasons, few "hardwater" anglers would even consider dragging their tip-ups onto a frozen lake without some company.

If there's one undesirable thing about ice angling—it's that the season is just too short. Uncertain weather conditions, late winters and early springs plus that "bugaboo" called *work*, always seem to keep your days on the ice at a minimum.

Although there's a virtual "land of lakes" in the Pocono region of Pennsylvania, my winter angling always seems to draw me to the same two or three waters. But actually, fishing the same spots on a regular basis has many advantages. Besides knowing what kinds of fish to expect, what part of the lake is most productive and how deep particular holes are, being able to head for a certain spot and "set up camp" saves a lot of time. This is why we like to fish PROMISED LAND LAKE'S "Pickerel Point" region.

The "we" refers to my Palmerton friends—Bill Fritzinger, George Bobita and Nevin Lentz—the same trio that introduced me to this "hardwater" sport several years back. From the first freezeup on,

continued on next page

Nevin Lentz takes his turn at the motorized ice auger.



FUN ON ICE

“Pocono Style”

continued from preceding page

George's homemade sled—equipped with Coleman stove, hibachi, eating utensils, tip-ups, canvas wind-break, and anything else one could want on a cold winter day—becomes the center of activities at our “ice camp.”

KNOWN TO CAMPERS

PROMISED LAND LAKE is well known to the many campers who use the facilities of the 2,300 acre state park throughout the year. In fact, on each winter jaunt to Pickerel Point, on a peninsular camping area jutting out into the Lake, a few hardy campers can be found braving the snow-time elements. The 420 acre lake is heavily fished in summer due to the tremendous number of visitors to the park. Perch, pickerel, largemouth and smallmouth bass—plus three species of trout inhabit the lake . . . although we have yet to take a trout through the ice.

Whenever our crew of six to ten anglers take to the lake, the first and most tedious job is drilling or chopping the holes. But thanks to George and his newly acquired motorized auger, however, the chore has been made easy—in fact, fun. But carelessness in letting the drill penetrate too deeply results in a fountain of cold lake water, a just consequence for the convenience of automation.

Although everyone's allowed a maximum of five portals through which to fish, we seldom drill more than a total of 30. By spreading these out in a circular pattern with an “X” through the center, roaming schools of perch keep flags jumping all day long. And seldom do we pack up without someone having pulled in a few pickerel or even a largemouth or smallmouth bass.

Perch, however, are seldom included on our frozen stringer at day's end—not because we don't keep them—but because they are routed directly from frigid water to steaming frypan! Anyone who's never tasted the delicious white flakes of perch meat, fresh from a lake, is in for a real treat—another facet of ice fishing fun.

OTHER NEARBY HOTSPOTS

PROMISED LAND LAKE is by no means the only winter hotspot in the Northeast. Since my home is in Coopersburg, in Southeastern Pennsylvania, most of my lake fishing is done in waters that lie between the new BELTZVILLE LAKE, just north of the Blue Mountain ridges, and the PROMISED LAND-WALLENPAUPACK region on the Pocono plateau. These lakes are within a reasonable morning's drive of the Allentown-Philadelphia-Harrisburg population centers and offer a wide variety of angling opportunities.

Driving west from PROMISED LAND LAKE toward WALLENPAUPACK on Rt. 390, you'll pass FAIRVIEW

LAKE. Although considered “warm-water,” summer-stocked trout are frequently taken along with bass, panfish and pickerel.

Ten minutes away is LAKE WALLENPAUPACK. Freeze-up time here is generally late in the winter, due to the heat-storing potential of this 5,670 acre lake. Although perch are by far the winter staple, both species of bass, pickerel, walleyes, crappies, and trout are plentiful and can be taken by jigging or on shiner-rigged tip-ups. It's important here to sound bottom because the lake has numerous sharp drop-offs as well as shoreline shallows.

To the east of WALLENPAUPACK, just off Route 6, is SHOHOLA DAM. Known primarily for its chain pickerel, the 1,200 acre impoundment may also yield a largemouth or two through the ice.

To the south, Monroe County's BRADY'S LAKE (off Rt. 940 between Mt. Pocono and Blakeslee Corners) is popular not only for pickerel and largemouth, but in recent years, nice muskies as well. West of BRADY'S, also off Rt. 940, is FRANCIS E. WALTER DAM. An impoundment on the Lehigh River, pickerel, trout and panfish are the usual fare.

East of Brady's, on the Monroe-Wayne County line, is GOULDSBORO LAKE. Here pickerel take shiners on tip-ups, walleyes hit jigs and perch will be attracted to either. A stone's throw to the south are the two Tobyhanna State Park lakes with populations of bass, pickerel and panfish.

To the southwest, on Rt. 402, is PECK'S POND where bass, pickerel, and panfish can be taken on minnows.

Although BELTZVILLE LAKE's panfish population needs more time to establish itself, the fighting tiger muskies continue to amaze anglers and can be taken on extra large shiners all winter long.

Anyone who's ever fished the Pocono “*Land of Lakes*” knows that even Methusela would have had trouble ice fishing each one. Hundreds of lakes, ponds and impoundments dot the northeast and offer mid-winter angling at practically every turn. Although bait shops are numerous, it's advisable to bring your own shiners, grubs and worms with you, especially if you plan to fish in the morning before the shops are open.

Volumes have been written of the comradeship evoked by hunting and fishing. Ice fishing not only offers the opportunity to get outdoors with friends but setting up an “ice camp” requires work and co-operation. Drilling holes, “answering” tip-ups, baiting hooks, sharing jigs, helping out your buddy's son or putting on a fresh pot of coffee all call for co-operation without the usual regimentation. This is where ice fishing comes into its own. In between chores there's plenty of time to relax and talk, wander across the ice and see how someone else is doing or hike the snowy shoreline with your camera.

There's no doubt about it—ice fishing is a team sport. If you've never tried it—don't go it alone. Get a crew together and this winter have some “FUN ON ICE—POCONO STYLE.”



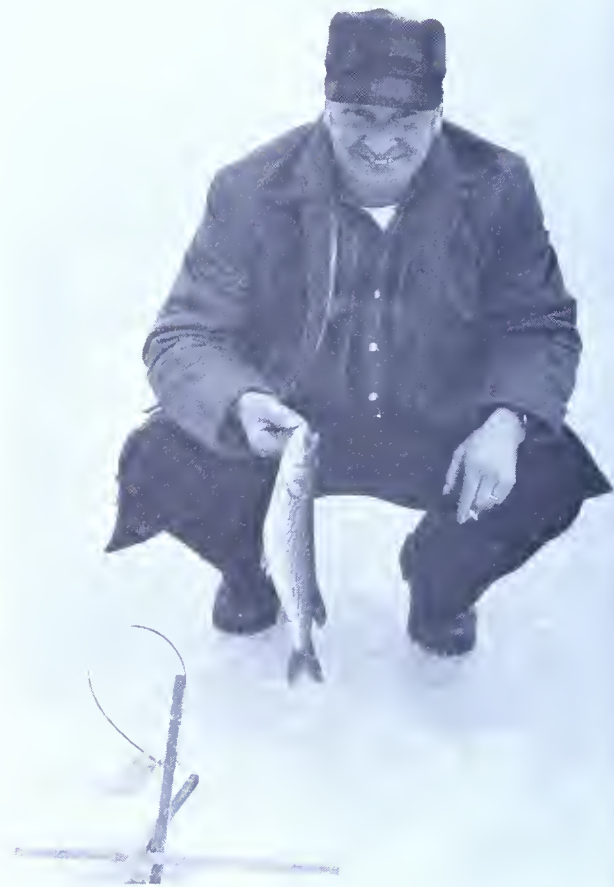
Above: This pigeon glided in, took a drink from the angler's hole in the ice, sampled coffee cake, then departed. Right: Steve Lusch and Scott Fritzinger enjoy hot chocolate while hoisting morning's catch of perch and pickerel. Below: All the comforts of home—well, almost! George Bobita brews hot soup.



Shawnee Freeze-Up



by Fredric Doyle



The chain pickerel is a common winter catch.

"**T**IP UP!" somebody yelled. I turned and saw a fisherman running across the ice toward a little red flag fluttering in the cold wind. Hand over hand the man was hauling in the monofilament line. Suddenly he stopped. I saw that he was in trouble.

"This line's not strong," he called, "and I'm on to a good sized fish."

"OK," I answered, reached into my rucksack and grabbed a gaff—a small hook made from an ice pick, and hurried to his side.

His line was sliding through his fingers down the six inch hole in the ice. "Easy! Easy!" He was talking to the fish on the end of his line. The fish seemed to have heard, for the run stopped. Again, hand over hand, he carefully tugged on the line.

A green shadow darkened the hole. Dropping to my knees with gaff in hand I watched. "He'll cut the line on the rough edge of the ice if he lunges," I cautioned.

The shadow turned white as the fish rolled over. In another instant its snout bobbed to the surface. I hooked it under the lower jaw and slid it onto the ice.

"Wow! I'm fishing for crappies and perch," he exclaimed "and look what I got . . . a northern pike!" In comparison to the small yellow perch and crappies scattered on the ice the pike looked a yard long.

"Got a ruler?" he asked.

I stretched my tape over the pike. "It's a fraction of

an inch short of the two foot limit," I informed him sadly.

"Maybe if you had measured it *diagonally* . . ." he smiled as he plopped the pike back through the hole in the ice.

We were fishing on the Keg Run arm of the Shawnee State Park Dam in Bedford County. I watched as he rebaited his number six hook with a two inch minnow. He hooked the shiner just back of the dorsal fin and dropped it through the hole in the ice. A single split shot carried it down. A small snap-on bobber would hold the minnow suspended just off the bottom. The tip-up was of the conventional type; an underwater reel attached to a one half inch square rod with a steel spring tip rigged at right angles to two crosspieces. A strike triggers the release of the spring, flipping up a little red flag.

I returned to my own territory to check baits. The four inch minnows kept my bobbers dancing. I was not after bluegills. Also, ice fishing was not exactly my greatest interest. The reason, I discovered on this bright, cold winter day, was my ignorance of a seemingly simple sport. The fishermen around me seemed to sense this. When I first arrived on the ice with my gear, and started chipping a hole with a spud, a neighbor came over with one of those razor sharp Swedish hand augers and drilled a half dozen holes in nothing flat.



Ice fishing is fun for the entire family. Dress warmly and you'll be comfortable all day. Even dogs enjoy it!

"We don't need power drills here," he said, "the ice is seldom more than eight or ten inches thick."

He examined my tip-ups and assured me that they were O.K. The underwater reels prevented freeze-ups.

"Bait?" I asked.

"The list is as long as a poor man's store bill," he said, "take a look around."

Which I did. The list included baits in use and baits recommended. Minnows topped the list. Small minnows for perch and crappies. For bluegills, jigs baited with meal worms or goldenrod grubs. Garden worms, nightcrawlers, shrimp, corn, wood grubs, pickled herring, salmon eggs, eyes taken from freshly caught perch.

"Where is the best place to fish?" I asked. Answers varied. One day it was productive *here* . . . the next day *there*! There were no hot spots." The evenings, that is, after four o'clock, were best.

I was impressed with the cordiality expressed by both individuals and groups. Families with children and dogs gathered around wind breaks and gas stoves. The tantalizing odors of hot coffee and sizzling hamburgers tempered the biting winds. The ice, expanding under the subfreezing temperature, rumbled like distant thunder. Talking with a man and his wife and their small children I was fascinated with their very small baby sitting on a hand sled. He was well bundled, and stared at me unblinkingly. Suddenly, he toppled off the sled and nosed into the slush

ice near a tip-up. Without a break in the conversation, the baby's mother (who was telling me about ice fishing on other lakes) rescued the baby, who never even whimpered, by the way. Apparently, he too was a seasoned ice fisherman—in his own way! Who says rugged individuals are a vanishing breed?

I went back to my tip-ups, thinking on the way of the variety of recommended baits. I felt naked as I looked at my minnow bucket. Just then I saw one of my bobbers go under. Following the technique of summer fishing when we allow the pike or bass to run, stop, turn the minnow and start again before setting the hook, I waited for the second run. Nothing happened. After a reasonable pause I pulled in the line with a chewed up minnow still on the hook. This happened the second time. The third time when the bobber went under I pulled and soon had a nineteen inch pickerel flopping on the ice. I caught another pickerel and several yellow perch when I switched to smaller minnows.

Summing up the observations of the day the conclusion was this: for pickerel and pike, perch and crappies, live minnows. For bluegills, jigs baited with meal worms or grubs of some sort is a must. Garden worms and nightcrawlers were also effective for perch—if you can get them. Minnows fished on the bottom even produced bullheads.

Needless to say, I'm anxiously waiting for the next SHAWNEE FREEZE-UP!



Potter Creek rock dam, above, provides aeration and farm pond supply.



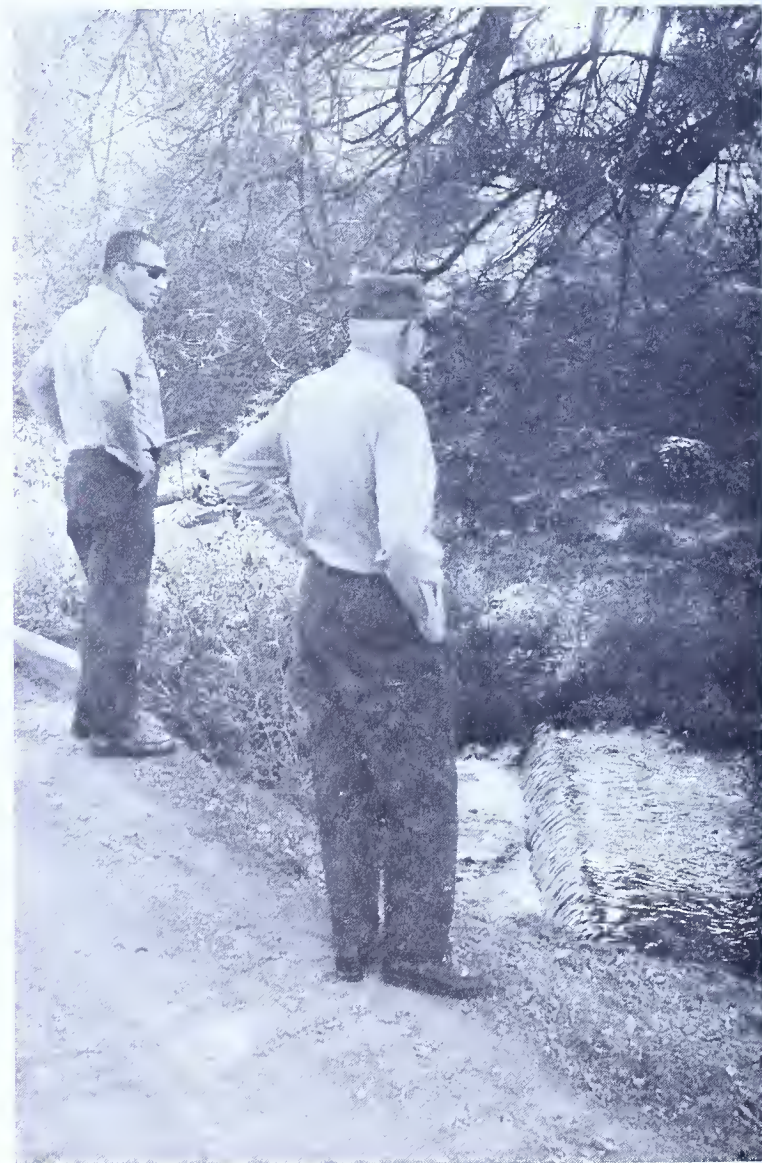
Roy Shryock, SCS, above, checks single pole dam built on 3-Spring Run.

Dam, below, aerates stream and will develop scour hole for fish cover.



Local citizens and Boy Scouts joined in 3-Spring Run project, above.

Single pole dam, below, built by B.S. Troop #64, New Enterprise, Pa.



Partnerships In Resource Development

by Louis Beck

*District Conservationist, SCS
Bedford, Pennsylvania*

"There are more ducks here than in the rest of the state," said Charles Kreider. "Since I worked on my stream, I not only have terrific fish cover but an added bonus of ducks and small game." Mr. Kreider was the first landowner in Bedford County, Pa. to develop his stream for improved trout habitat and erosion control. Conservation leaders concerned with the preservation of prime trout habitat took action to solve a problem in Bedford County, Pa.

Bedford County has 240 miles of high-quality trout streams. Many miles of these streams run through prime agricultural areas. The main farming operations are dairy and beef production. Pasture and exercise lots are located adjacent to many streams in order to provide livestock with water and livestock have access to many good trout streams. They trample the streambanks, destroy vegetation along the water course, and cause problems of pollution and erosion. Accelerated erosion has, in many cases over the years, widened stream channels, and silted-in deep holes.

There was much concern by individuals and organizations over the loss of trout habitat. The open, shallow, slow-moving streams with heavy silt loads are not highly conducive to good trout populations. The problem was to maintain cold, swift, well-oxygenated water, which trout require, and yet meet the needs of farmers.

Conservation leaders Glenn Clouse, Waterways Patrolman Bill McIlhenny, Jack Mumma, and John Eckes developed a special practice for action and cost-sharing. This practice, as developed, is designed for fish stream improvement and streambank protection. Consideration is *not* given to straightening or relocating channels.

All improvements had to conform with the laws and specifications of the Pennsylvania Department of Environmental Resources, and they had to conform with the guidelines set forth in the "*Stream Improvement Guide*," published by the Pennsylvania Fish Commission.

Both the Pennsylvania Fish Commission and the Soil Conservation Service assist landowners and organizations to develop complete plans for their water resources.

Over the years, work of this sort has been carried out with concerned individuals, communities and organizations such as Boy Scouts and Trout Unlimited. District Scout Executive, Tom Walther said, "The stream work Dennis St. Clair did was the best Eagle Scout Project I've seen." Originally, a question was raised regarding the effect of flooding on this type of development. The structures installed have successfully withstood flooding several times.

One development withstood a flood that wiped out township and private bridges, both above and below it. Fencing in conjunction with fish devices, usually requires repairs after high waters. The successful development and application of this concept has helped not only the resource problem involved, but also the working relations of the concerned agencies through increased awareness and respect for each other's programs.

Bill Helsel, left, developed a management plan for his water resource.





Tent City at Lake Erie

by Mike Cuneo

photos: Joe Comstock

*If you
can brave
winter's chills—
You're
in for some
ice fishing thrills!*

DURING THE MONTHS of January and February, when the weather is colder than blitzen in the Erie area, "Tent Cities" seem to abound in the strangest places.

The tents aren't there for any type of protest group or anything like that, but for the hardest of fishermen, the Presque Isle Bay ice fishermen.

These anglers occupying the multitude of shanties set up on the thick winter covering over the bay are a different breed of men, set apart from the rest of the anglers because their outdoor fun doesn't start until

most of the other anglers store away their gear and ready themselves for fireside fishing *talk*.

Foresaking the warmth of the fireside, with catcalls from all directions hitting his ears, the angler with icicles in his veins makes a daily trek onto ice-covered Presque Isle Bay from the time the first ice covers the water until the spring thaw.

The first thought that enters the mind of the warm weather angler is how anyone could be crazy enough to go through all the bother and discomfort of bundling himself up so much that he can hardly walk, spend valuable time setting up a shanty, once he stumbles onto a suitable spot, and hack away at the frozen matter—just to stick a bait covered hook through a little hole in the ice!

Why? Simply because no other type of fishing produces results like those an ice fisherman gets; and there is probably no better place to practice that sport than on Presque Isle Bay.

The average rodbender can fill a five gallon bucket to the brim with tasty little panfish from the ice cold water. And that is enough to warm the heart of any angler!



◀ *That's the smallest playboy club we've ever seen!*

*

Erie's ice fishermen will ► brave the early morning cold for those tasty panfish.

*

One thing's certain, you'll ▼ never be lonely on Erie!



Besides a stout heart and immunity to wind and cold, all an angler really needs to partake of the sport is a heavy coat, a pair of insulated boots, arctic mittens, any kind of pole and line and a device of some sort to chop his way through the thick ice.

The angler who makes ice fishing a regular happening usually goes for something more sophisticated; running to the nearest sporting goods establishment for a good heater, a shanty, and an ice auger. But the equipment he uses is never elaborate and most of it you'll never see on shelves of a tackle shop because it's been carefully hand-crafted by the angler himself.

The tip of an old fly or spinning rod, fastened to a piece of wood used for the handle, makes a dandy rig and the reel can be nothing fancier than a couple of nails pounded into the handle. After filling the "reel" with light test monofilament line and attaching a couple of hooks to the end, the rodbender is ready to head for the ice and some spine-tingling action.

Small hooks laden with grubs or worms catch the bigger share of the fish, but there are times when the fish are so cooperative they'll take anything the angler

will show them, including leftovers from a sandwich the angler just finished munching and other assorted goodies ranging from fish entrails to hot dogs.

The fish are hungrier than any time of the year when there's a big cover of ice over the water because their fat stores from summer are just about used up.

Besides being cooperative during the winter, there probably isn't a better tasting fish around. They're skinny with just the good eating flesh on their backs and, because they haven't been digging in the mud, eating algae, there's nothing "muddy-tasting" about them.

The prime fishing in the Erie area is no further away than a 300-yard walk from the Public Dock in the downtown section. The protected areas off Presque Isle, such as Misery Bay and the Marina, also offer great ice fishing.

The ice fishing hotbeds aren't ever very hard to find because all you have to do is drive around Presque Isle, or take a trip to the Public Dock, and look for a tent city . . . that's where you'll find some chilling, thrilling fun!



◀ Lake Wilhelm's Northerns don't come willingly, so be prepared! A gaff is an invaluable aid to landing them.

There's Plenty of Action at Lake Wilhelm!

Photo Feature by EDWARD T. GRAY

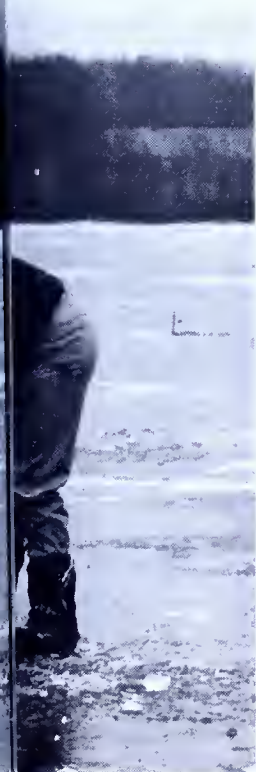
LAKE WILHELM, in Goddard State Park, is providing some top-notch ice fishing for one of the gamest of game fish: the Northern Pike. The northern is not choosy about bait—as long as it's a minnow! This relatively new lake is about 15 miles from Meadville, between Sandy Lake and Sheakleyville, not more than a few hours drive from the heavily populated Pittsburgh area. Give it a try—now!

Lower left: Long (and we do mean long!) nosed pliers are almost a must when disengaging a hook from these sharp-toothed monsters. Below: You won't be alone on the ice at Lake Wilhelm. Action is fast and furious—and fun!





Above: Bill Schmiedlin and Chan Choi with three northern pikes that measured between 26" and 29"—a stringer to be proud of! Right: An unidentifiable angler brings another out of Wilhelm's depths! Below: If you're lucky (or otherwise) you might even find time for a well deserved coffee break!



Reorganization of Law Enforcement Regions

by Steve Ulsh,
Education & Training Officer

Photos: Russell Gettig,
Staff Photographer

On September 1, 1973 the PENNSYLVANIA FISH COMMISSION, in an effort to bring Commission services nearer to the fishing and boating public, reorganized its regional LAW ENFORCEMENT DIVISION. These offices are chiefly responsible for the supervision of waterways patrolmen in their fishing and boating enforcement duties. In addition, they provide

such services as fishing and boating schools, investigation of requests for mining permits, channel changes, and pond draw downs.

Supervisory changes were made in order to staff the expanded REGIONAL OFFICES and we would like to introduce them to you along with a map showing our new regional organization.

Northwest Regional Office— Franklin, Pa.

Counties served: Butler, Clarion, Crawford, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren.



Walter G. Lazusky,
Supervisor


Walt transferred into the Northwest Region from the Northeast where he served as Assistant Regional Supervisor. Joining the Fish Commission in 1960, he began his service as an enforcement officer in Lackawanna and Southeastern Susquehanna Counties. A graduate of Frackville High School, Walt served with the 6th Marine Division in North China in 1945-46. Married in 1956 to Stella Mikus, the Lazuskys have six children. Walt lists fly-tying, lure making, gardening and fishing as his main hobbies and maintains an interest in football, basketball and baseball.



A graduate of Reade Township High School in Mountandale, Cloyd started his career with the Fish Commission as a field officer in Blair County in 1964 and later was promoted to Assistant Supervisor. Married in 1952 to

Broken lines on the map indicate the geographical boundaries of each of the six new regions.

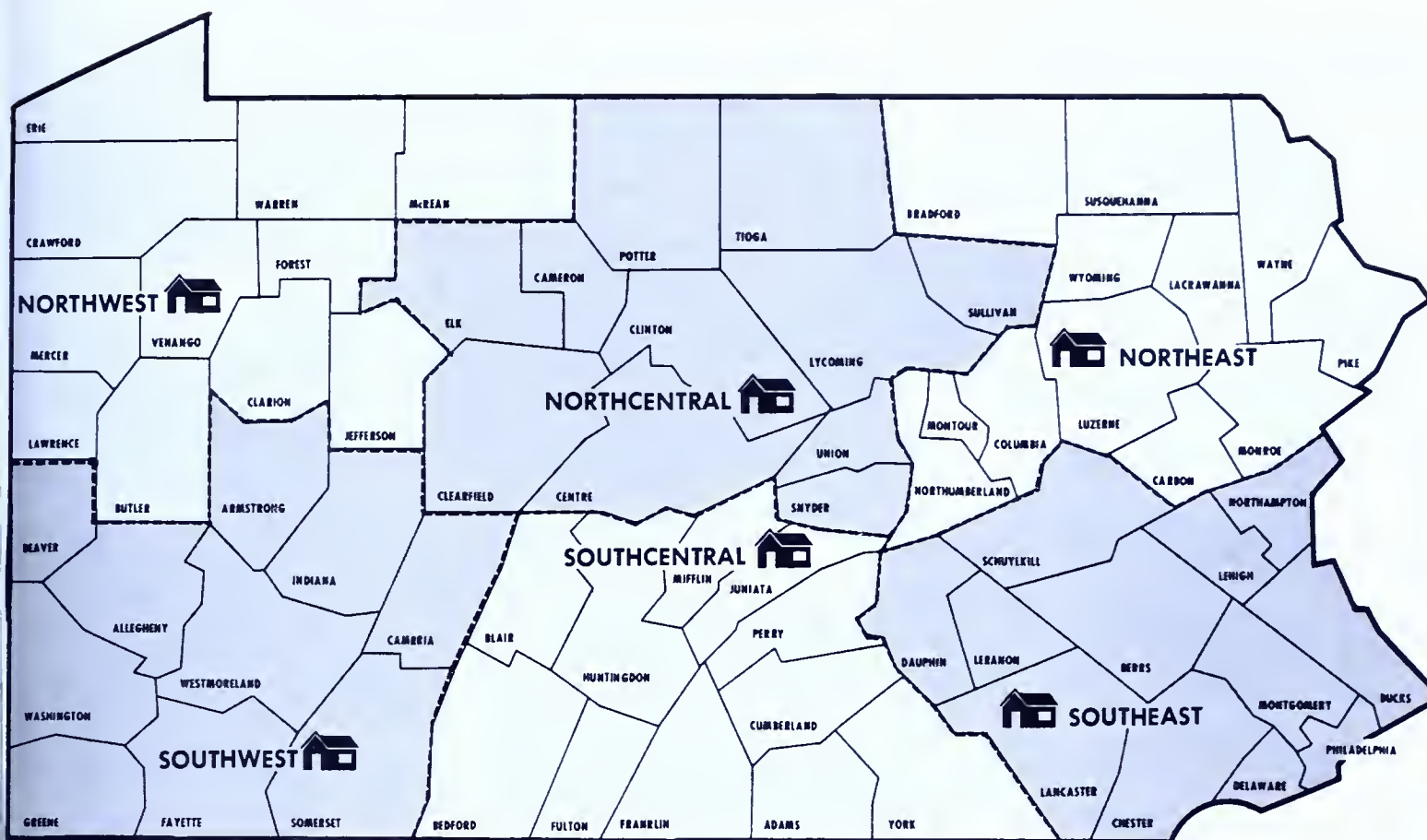
Telephone numbers, mailing addresses and actual locations are listed on page 21.

 *indicates office location.)*

the former LaRue Miller, the Hollens now live in Sugar Creek with their two children, Wayne and Sharon. Cloyd served in the U.S. Army from 1952 to 1954, spending the bulk of his service time at Fort Hamilton in Brooklyn, New York as a Surgical Technician.



Cloyd Hollen,
Assistant Supervisor



Northcentral Regional Office— Lock Haven, Pa.

Counties served: Cameron, Centre, Clearfield, Clinton, Elk, Lycoming, Potter, Snyder, Sullivan, Tioga, Union.



**Miles D. Witt,
Supervisor**

Born in Somerset, Miles joined the Fish Commission in 1955 as an enforcement officer in Bucks and Northampton Counties. He was promoted to Assistant Supervisor in the Southeast Region in 1965 and later to Supervisor. A graduate of Somerset High School, he attended evening sessions

at Moravian College in Bethlehem. Married in 1941 to the former Anna Mae Diveley, the Witts have one son. In addition to hunting and fishing, Miles is active in the Masons, belonging to chapters in Hellertown and Lebanon, the VFW and the Annville Methodist Church. During World War II he served with the U.S. Navy in both the Atlantic and Pacific Theaters.



**Paul Swanson,
Assistant Supervisor**

A graduate of the Commission's H. R. Stackhouse School in 1967, Paul began his service as a Waterways Patrolman in Centre County. He later served in the same capacity in Western Erie County and subsequently was made Waterways Safety Coordinator in Region I at Franklin. Born and raised in Kane, Pennsylvania, he graduated from Kane Area Joint High in 1962. Before joining the Fish Commission he served with the U.S. Air Force as a jet aircraft mechanic. Married to Diane K. Umbs in 1971, Paul lists fishing as his main hobby with special emphasis on ice fishing. He also enjoys woodworking and working with youth.

Northeast Regional Office— Sweet Valley, Pa.

Counties served: Bradford, Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Northumberland, Pike, Susquehanna, Wayne, Wyoming.

A graduate of Smethport High School in McKean County, Mr. Fleeger served with the United States Marine Corps from 1942 to 1946 and saw action with the 4th Raider Battalion in the Pacific Theater. His first assignment with the Fish Commission was "Fish Warden" for Elk County where he served from 1952 to 1959. He was promoted to Regional Supervisor for the Northeast region with

continued on next page

Reorganization of Law Enforcement Regions

continued from preceding page



**H. Clair Fleeger,
Supervisor**

headquarters in Honesdale in 1959 and transferred to the present headquarters in Sweet Valley in 1967. Clair is married to the former Jeanne Marie McNair and has four children. He is an avid hunter, fisherman and camper.



Bob graduated from Scranton Tech in 1947 and served with the 9th Infantry Division in Korea in 1950-51. After completing studies at the Fish Commission H. R. Stackhouse Training School in 1964, he was assigned



**Robert Perry,
Assistant Supervisor**

as a field officer responsible for Columbia, Montour and Northumberland Counties. Bob, his wife, Margaret, son and daughter currently reside in Bloomsburg. Bob lists fishing as his main hobby.

Southwest Regional Office— Somerset, Pa.

Counties served: Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland.



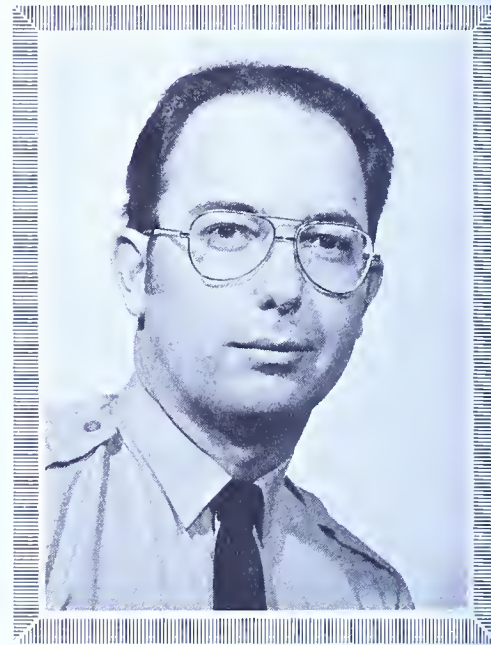
**Thomas F. Qualters,
Supervisor**

A graduate of McKeesport High School, Tom joined the Fish Commission in November 1964 after spending some time in professional baseball first being signed as a pitcher with the Philadelphia Phillies. After a stint as a "Fish Warden" in Cambria County, he assumed Assistant Supervisory duties in the Southwest Region. Married to the former Beverly Ann Ritchery. The Qualters have three girls and one boy and live right on the shoreline of Lake Somerset. Tom is an active hunter and fisherman yet still finds time to coach youth baseball teams in Somerset.



Tony moved into the position of Assistant Supervisor after having spent six years as a field officer in Cambria County. Born in Houtzdale, he graduated from Moshannon Valley High School and later completed the Commission's Training School at Fisherman's Paradise in Bellefonte. A

bachelor, Tony is an avid hunter and fisherman. He served in the U.S. Army from 1960-1963 with two of those years being spent in Japan.



**Anthony Murawski,
Assistant Supervisor**

Southcentral Regional Office— Mifflintown, Pa.

Counties served: Adams, Bedford, Blair, Cumberland, Franklin, Fulton, Huntingdon, Juniata, Mifflin, Perry, York.



**Richard Owens,
Supervisor**

A former Waterways Patrolman, responsible for Mifflin and Juniata Counties, Dick joined the Fish Commission in 1954 and initially was assigned to Huntingdon and Mifflin Counties with detached service in Carbon and McKean Counties. After graduation from Olyphant High School he served in the European, Africa and Middle Eastern Theater in World War

II with the U.S. Air Force and was awarded the Distinguished Flying Cross and the Air Medal with three Oak Leaf Clusters. Dick and his wife Martha have two daughters, and currently reside in Lewistown. Active in the Presbyterian Church and the Masonic Order, he enjoys reading and canoeing.



**Frank A. Kulikosky,
Assistant Supervisor**

Moving from the Southeast Region to the Southcentral, Frank has moved through the ranks from a law enforcement officer in Cambria and Blair Counties to his present assignment. A graduate of Nesquehoning High School, he served with the 7th Armored Division in World War II spending 16 months in Europe where he was awarded the combat infantry badge. Frank and his wife Eleanor have four children. In addition to hunting and fishing, Frank lists such hobbies as gardening and winemaking.

Southeast Regional Office— Speedwell Forge Lake

Counties served: Berks, Bucks, Chester, Douthin, Delaware, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Schuylkill.



**Norman W. Sickles,
Supervisor**

Transferring from Supervisor in the Northwest Region, Mr. Sickles joined the Commission in 1939 and did research on Pymatuning Lake which at that time had just been constructed. Married to the former Naomi White in 1945, Norm and his wife have a son and daughter. During World War II he served with the 8th Division in Europe and was discharged in 1945 with the rank of staff sergeant. Before becoming a supervisor, he served as a field officer in Berks, Lebanon and Lehigh Counties and was Assistant Supervisor in the Northwest Region. An active outdoorsman, Norm has al-

so been a member of a number of fraternal groups in the areas where he's been assigned over the years.



**Stanley Paulakovich,
Assistant Supervisor**

Stan joined the Fish Commission in 1960 serving as a field officer in Allegheny County. Subsequent assignments were in Beaver County in 1964, and Lehigh-Northampton Counties in 1966. He moved from the field force to the Office of Information in 1969 and back to the Enforcement Division with his current assignment. Stan is an excellent writer, photographer and fisherman. He and his wife Peggy and their two daughters currently live in Emmaus. A 1942 graduate of Nesquehoning High School, Stan spent four years with the U.S. Navy in World War II in the Atlantic and Pacific.

To Serve You Better—

Requests for specific county information should be directed to the Waterways Patrolman serving your area. You'll find his name, address, and telephone number in your Summary of Fishing Regulations and Laws or in your copy of Pennsylvania Pleasure Boating Requirements.

If you are unable to contact your Waterways Patrolman in an emergency (to report a pollution, for example) call or visit the Regional Office responsible for the county concerned as indicated on the map on page 19.

REGION	TELEPHONE	MAILING ADDRESS	LOCATION
NORTHWEST	814-437-5774	1293 Otter St., Franklin, Po. 16323	Some
NORTHCENTRAL	717-748-5411	P.O. Box 688, Lock Haven, Po. 17745	129 Woodward Ave. (Dunnstown) Lock Haven, Pa.
NORTHEAST	717-477-5717	P.O. Box 88, Sweet Valley, Po. 18656	On Morris Pond, Sweet Valley, Pa.
SOUTHWEST	814-445-8974	R.D. #2, Somerset, Po. 15501	On Lake Somerset, Somerset, Po.
SOUTHCENTRAL	717-436-2117	R.D. #1, Mifflintown, Po. 17059	On Route 22, 3 miles west of Mifflintown, Pa.
SOUTHEAST	717-626-0228	R.D. #2, Lititz, Po. 17543	Speedwell Forge Lake, on Brubaker Valley Road.

SAFE BOATING IS NO ACCIDENT!!

Enroll in a basic boating class this year—there's one scheduled near you wherever you may live!

This Schedule of Boating Classes is provided to assist you in selecting an educational course near you. The schedule is prepared as much as a year in advance to allow for printer lead time, so these dates are subject to change. It might be advisable to check with the local sponsoring organization as the class date approaches. Also, since this listing must be prepared so far in advance, many schools are scheduled subsequent to this. For further information, contact the local sponsoring organiza-

tion or write to Boating Education, Pennsylvania Fish Commission, P.O. Box 1673, Harrisburg, Pennsylvania 17120.

COMMONWEALTH OF PENNSYLVANIA BASIC BOATING COURSE—Pennsylvania Fish Commission District Waterways Patrolmen teach this standard, three lesson, six hour basic course. The course is free; no pre-registration is required.

COUNTY	LOCATION	DATE & TIME
Allegheny	David E. Williams High School, Kennedy Township	1 Mar—8:00 PM
Armstrong	Contact WWP Discavage, 412-762-6281	
Beaver	Capt. Al's Marina, Ambridge	3 May—7:30 PM
	Skyline Motors Marine Center, West Bridgewater	1 May—7:30 PM
Bedford	Contact WWP McIlroy, 814-623-6529	
Berks	Contact WWP Ziegenfuss, 215-562-8815	
Blair	Contact WWP Rosser, 814-695-7222	
Bradford	Hights Pond, Leraysville	27 May—8:00 PM
Bucks	Contact WWP Johnston, 215-862-5169	
Butler	Jennings Nature Preserve, Slippery Rock	12 Mar—8:00 PM
Cambria	Contact Southwest Region Headquarters, Somerset 814-445-8974	
Cameron	Contact WWP Hastings, 814-486-1111	
Carbon	Leighton Area High School, Leighton	11 Mar—7:00 PM
Centre	Contact WWP Antolosky, 814-355-9681	
Chester	Contact WWP Bednarchik, 215-942-2830	
Clarion	County Courthouse, Clarion	2 May—7:00 PM
Clearfield	Curwensville High School, Curwensville	11 Apr—7:00 PM
Clinton	Contact WWP Wilson, 717-748-4474	
Columbia	Contact Northeast Region Headquarters, Sweet Valley, 717-477-5717	
Crawford	Pymatuning Sportsman's Club, Linesville	27 Apr (One Day) 10 AM to 4 PM
	Titusville High School, Titusville	5 Mar—7:00 PM
Cumberland	Carlisle Fish & Game Club, Route 641	15 Mar—7:00 PM
Dauphin	Contact WWP Stepanski, 717-692-2293	
Delaware	Contact WWP Baker, 215-565-1337	
Elk	Contact WWP Ambrose, 814-772-3151	
Erie	Northeast Hunting & Fishing Club, Erie	(To be announced)
	County Community Center, Erie	8 May—7:00 PM
Forest	Vol. Fire Company Recreation Hall, Marienville	4 Mar—7:00 PM
Franklin	Recreation Center, South 3rd Street, Chambersburg	6 Feb—7:00 PM
Fulton	Contact WWP Houck, 717-485-4289	
Greene	Contact Southwest Region Headquarters, Somerset, 814-445-8974	
Huntingdon	Contact WWP Valentine, 814-643-0283	
Indiana	Rustic Lodge, Indiana	28 Mar—7:00 PM
Jefferson	Contact WWP Duvall, 814-856-2805	
Juniata	Contact Southcentral Region Headquarters, Mifflintown, 717-436-2117	
Lackawanna	Lake Sheridan Pavillion	1 Jun—10:00 AM
Lancaster	Contact Southeast Region Headquarters, Speedwell Forge	
Lawrence	YMCA, New Castle	14 May—7:00 PM
Lebanon	Contact WWP Hornberger, 717-866-5523	
Lehigh	Contact WWP Mussel, 215-797-7779	
Luzerne	Lake Lehman High School, Lehman	3 May—7:00 PM
	Northeast Region Headquarters, Sweet Valley	18 May (One Day)—12:00 Noon—6:00 PM
Lycoming	County Courthouse, Williamsport	(To be announced)
McKean	Kane Senior High School, Kane	5 Feb—7:00 PM
Mercer	Hickory Armory, Hickory	13 May—7:00 PM
Mifflin	Contact Southcentral Region Headquarters, Mifflintown, 717-436-2117	
Monroe	County Courthouse, Stroudsburg	
Montgomery	Contact WWP Rotchford, 215-643-0451	13 Jun—7:30 PM
Montour	Danville High School Band Room	21 Feb—7:00 PM
Northampton	Bethlehem Boat Sales	27 Feb—7:30 PM
Northumberland	County Courthouse, Courtroom 2, Sunbury	7 Mar—7:00 PM
Perry	New Bloomfield Fire House	1 May—7:00 PM
Philadelphia	Contact WWP Schilling, 215-331-3514	
Potter	Contact WWP Aley, 814-435-9934	
Schuylkill	Habilitation Inc., Pottsville	2 Apr—7:00 PM
Snyder	Contact WWP Fry, 717-966-0821	
Somerset	Contact WWP Swab, 814-445-4423	
Sullivan	Contact WWP Kann, 717-946-7551	
Susquehanna	County Courthouse Annex, Montrose	27 Feb—7:00 PM
Tioga	Commonwealth Bank & Trust, Wellsboro	6 Feb—7:00 PM
Venango	Game Commission Division Office, Franklin	1 May—7:00 PM
Warren	Northwest Savings Bank, Hospitality Rm., Warren	19 Apr—7:30 PM
Washington	Contact WWP Mantzell, 412-222-7360	
Westmoreland	Contact WWP Hyatt, 412-593-7018	
Wyoming	County Courthouse, Tunkhannock	21 Feb—8:00 PM
	Fire House, Lake Carey	12 Jun—8:00 PM
York	Contact WWP Hartle, 717-244-6192	

U.S. COAST GUARD AUXILIARY CLASSES—This organization presents three courses, a 12 Lesson Basic Boating & Seamanship, a 7 Lesson Sail Course, and a 3 Lesson Basic Boating Course. "Tuition" is free but there is usually a charge for

course material. For more information contact: Director of Auxiliary, Federal Office Building, Box 782, Harrisburg, Pa. 17108, phone 717-782-3737.

COUNTY	LOCATION	DATE & TIME
CG AUXILIARY BASIC BOATING & SEAMANSHIP (12 weeks)		
Allegheny	Monroeville Mall, Monroeville	11 Feb—7:00 PM
	C & E Marina, Bellevue	6 Mar—7:30 PM
	Oakmont Yacht Club, Oakmont	7 Mar—7:30 PM
Beaver	County Courthouse, Beaver	12 Feb—7:30 PM
Berks	USCG Auxiliary Base, 2058 River Road, Reading	4 Feb—7:30 PM
	USCG Auxiliary Base, 2058 River Road, Reading	9 Sept—7:30 PM
Blair	Naval Reserve Bldg, Altoona	7 Mar—7:30 PM
	Same	12 Sept—7:30 PM
Butler	Bethesda Senior High School, Butler	6 Mar—7:30 PM
Cumberland	Harrisburg Seaplane Base, Wormleysburg	20 Feb—7:30 PM
	Same	29 Apr—7:30 PM
	Same	19 Aug—7:30 PM
	Same	11 Sept—7:30 PM
Dauphin	Naval Reserve Training Center, Harrisburg	27 Feb—7:00 PM
	Same	11 Sept—7:00 PM
Lancaster	Distelfink Inn, Lancaster	13 Feb—7:30 PM
	American Legion, Columbia	(Date to be announced) Feb—7:30 PM
	Same	13 May—7:30 PM
	New Holland Bank, New Holland	18 Feb—7:30 PM
	Same	13 May—7:30 PM
Luzerne	Naval Reserve Training Center, Hazleton	14 Feb—7:00 PM
	To Be Announced, Wilkes-Barre	13 Feb—7:00 PM
Lycoming	Loyalsock Twp. Senior High School, Williamsport	26 Sept—7:30 PM
Northumberland	Milton Area High School	18 Feb—7:30 PM
	Same	13 May—7:30 PM
Philadelphia	Northeast High School, Philadelphia	6 Mar—7:30 PM
	Same	18 Sept—7:30 PM
	U.S. Custom House, Philadelphia	16 Sept—7:30 PM
York	Caterpillar Tractor, York	20 Feb—7:30 PM
	Grangeville Fire Hall, Hanover	18 Feb—7:30 PM
	Same	13 May—7:30 PM
Principles of Sailing (7 Weeks)		
Allegheny	Red Cross Bldg., Pittsburgh	11 Feb—7:30 PM
Blair	Naval Reserve Bldg., Altoona	5 Aug—7:30 PM
Cumberland	Harrisburg Seaplane Base, Wormleysburg	7 Mar—7:30 PM
Lancaster	Distelfink Inn, Lancaster	25 Sept—7:30 PM
	American Legion, Columbia	5 Aug—7:30 PM
	New Holland Bank, New Holland	5 Aug—7:30 PM
Lebanon	Lebanon Senior High School	3 Apr—7:30 PM
Lycoming	Loyalsock Senior High School, Williamsport	5 Aug—7:30 PM
Northumberland	Milton Area High School	5 Aug—7:30 PM
York	Susquehanna Yacht Club, York	9 Apr—7:30 PM
	Grangeville Fire Hall, Hanover	5 Aug—7:30 PM
Basic Boating (3 week)		
Columbia	To Be Announced, Bloomsburg	
	To Be Announced, Berwick	
Cumberland	Harrisburg Seaplane Base, Wormleysburg	1 Apr—7:30 PM
Luzerne	To Be Announced, Hazleton—Wilkes-Barre—Freeland	
Montour	To Be Announced, Danville	
Schuylkill	To Be Announced, McAdoo—Mahanoy City	

U.S. POWER SQUADRONS—The Power Squadrons are the oldest and largest of the voluntary boating organizations dedicated to boating education. They present a 10 Lesson Boating Course. No "tuition" fee is charged, but there is usually a fee

for materials. While our information on classes for 1974 is sparse, the Power Squadrons have a toll free number where you can get information on classes near you—Call it: 1-800-243-6000.

Delaware, Chester, Montgomery Counties—Call 215-789-0114

THE AMERICAN RED CROSS—The Red Cross carries on an active boating safety program, primarily in the summer months. These courses are usually in conjunction with summer camps, and include both theory and practical demonstration. Comprehensive courses in small outboards, canoeing and sailing are

offered. A very nominal fee, varying with the sponsoring Chapter, is charged. For further information, contact Paul Grubb, Harrisburg Chapter, 230 State Street, Harrisburg, Pa.—717-234-4101.

THE U.S. COAST GUARD SELF-TEACHING "SKIPPER'S COURSE"—The Coast Guard has published a self-teaching course in boating safety. This course is in no way a substitute for a live attendance course, no matter how basic. However, since it is realized that some boaters may find it impossible to

attend one of the many courses listed in this schedule, the Fish Commission has integrated this course as part of its overall state boating education program. To apply for this course, send \$1.50 to Boating Education, Pa. Fish Commission, P.O. Box 1673, Harrisburg, Pa.—17120.



TO WADE— OR NOT TO WADE?

I just recently returned from my annual fall trip to my favorite part of Pennsylvania, namely sections of Tioga, Lycoming, Potter, and Clinton Counties. Here is where my favorite trout streams are, and having been a fly fisherman for almost 18 years, I am always sorry that I can't fish them at this time of the year when the trees display their beautiful autumn colors. This letter therefore is being written in response to letters by Mr. S. C. Richards of DuBois (October 1973) and Mr. T. L. Kyle of Pittsburgh (December, 1973), and also the answers given to each by Mrs. Delano R. Graff, Assistant Chief, Division of Fisheries.

First, I would like to commend Mr. Richards for suggesting that FLY-FISHING-ONLY streams be converted to fish-for-fun after Labor Day; also Mr. Graff, for promising to refer the matter to the Chief of Fisheries Management for consideration. However, I am not in favor of Mr. Graff's compromise, to allow a creel limit—should some of our best streams which are noted for their ability to carry trout over from one season to the next, be granted an extended season under "modified" FISH-FOR-FUN regulations. I fish all of Pennsylvania's streams for *fun* during the regular season, and although I respect the right of others to keep their legal limit, I think they can do without this on our best carry-over streams during any extended season. I would like to see *all* the streams made FISH-FOR-FUN through October with no creel limit except on the streams with no ability to carry trout over.

Secondly, Mr. Richards and Mr. Kyle are absolutely correct when they say that the no wading regulation is ridiculous on the FISH-FOR-FUN section of Kettle Creek. This was the only section of trout stream that was available to me during my trip. I prefer the upper sections of Kettle during the regular season, so it was the

first time that I ever fished it. But, like the rest of the stream, it too is in a wild state and *must be waded* to be fished properly. Mr. Graff will disagree with me just as he did with Mr. Richards and Mr. Kyle, but if you're going to *Fish for fun*, then by all means HAVE FUN! And you can't have fun when your not allowed to make a proper cast—which often requires wading. Any wading that I might have done couldn't have disturbed anyone that day because I was the only angler on the 1.7 miles that I know of. FISH-FOR-FUN streams like Kettle Creek that are in a wild state can't be compared to the Paradise at Bellefonte where you fish in a hatchery and they even mow the grass along the banks of the stream. Also, I've seen plenty of other fishermen there, too. No wading is OK here.

T. J. THOBURN
Scottsdale

LOOKING FORWARD—

I have been an avid fisherman in Pennsylvania all my life. I am presently completing a four year hitch with the U.S. Navy and have been stationed overseas for the past year. During this time, my only regular contact with life back home has been those monthly arrivals of the Pennsylvania Angler and Pennsylvania Game News. I thoroughly enjoy reading about fishing in the Allegheny and Juniata Rivers—both of which have produced many unforgettable memories.

Keep up the great conservation efforts. I sure am looking forward to getting started again this spring.

TOM CONRAD
U.S. Naval Hospital
Guantanamo Bay, Cuba

IN RETROSPECT—

This sirs, is a letter of thanks. Not so much to you, but to a friend. You see, somehow I must say thanks to him, and while reading my latest Angler edition, decided it would be through you.

An old friend of mine, Bill Groves, passed on recently. I first met Bill when I was fifteen, and he was, to me then, an "old guy" in his forties. I can't truthfully say that he was an overpowering influence on me, but as I sit here at age thirty-eight, and look back on the things he did that impressed me, I have to realize that he *was* an influence on me, and to, the Lord only knows how many other younger people.

Bill wasn't a drum beater, or an

organization man, but he was a darn good fly-fisherman. I didn't get to fish with Bill as often as I would have liked, but each time I did was an adventure in itself. It was he that taught me to release a trout to, in his words, "*fetch up bigger.*" He taught me also, that no matter how good they're hittin', if you saw a little fella snagged-up, or with a birds nest backlash on his reel, it's never too much trouble to set your rod aside and give some help or advice.

Bill's passed on now and left me all his fishing and fly tying gear, along with a good supply of his "Groves Special" streamers that he tied and used so well with much success.

So gentlemen, through you, I would like to thank Bill, and to thank God that there are sportsmen like him and yourselves, in this great state of ours.

STAN TURTLE, JR.
Conshohocken

UPSTREAM? WHY NOT?

I must reply to Mr. Charles Furimsky's letter in the October *Angler*, taking issue with Mr. Edwin Pearce and his method of casting *upstream* for trout. I have used this method some 35 to 40 years and have caught my share of trout.

I hold my rod horizontal to my body, waist high and the lure is about 3 feet above the water through the cast. This almost eliminates slack line and wind resistance. I use the same method fishing for bass. The trick is to be ready to retrieve the instance the lure hits the water. The lure will work properly if the retrieve is at the right speed. This method works for Mr. Pearce and he is passing it along to other fishermen.

Speaking of lures, why not include along with the Mepps, the Garcia Abu, CP Swing, and the F4 Flatfish? Here are a few items for you, Mr. Furimsky, to believe or not: A 12 inch rainbow trout caught on a spinning-size Jitterbug; a seagull dive bombing my Phillips Crippled Killer in the Juniata River and caught in the web-foot! Also, two "doubles," that is, two fish caught on one cast of a plug; one in the Susquehanna at Harrisburg, and the other in the Tuscarora Creek. I will continue to cast for the third! I advise other fishermen to use this upstream casting (to the head of the pool) method; it works for others, why not for you?

PAUL B. JONES
Harrisburg



REPORT ALL "ROAD KILLS"!

The other day, while getting gasoline, a man asked me, "Hey buddy, would you do me a favor?" "What's the favor?" I asked. "I would very much appreciate it if you would drop me off one of those road kills you pick up." I started to laugh and he said, "Man I am not joking! With the price of meat as it is, I could use one." I told him that he wouldn't want any that I found. I said that I didn't get any *road kills*, since the mortality rate was very low. With that, he said he had read about all the ones killed last year.

I told him that I would keep my eyes open for one, but in nearly five years with the Commission I haven't seen one yet! "Come on," he stated, "my friend hit one just a few weeks ago." "A fish?" I asked. He looked at my arm patch and then with a very *red face*, said, "OK pal, I believe you now about the low *road kill* rate," and began to laugh as he walked away. If any anglers happen to hit a good size musky, pike, etc, how about a call? I'll be happy to come and get it!

G. L. Greiner
Special Waterways Patrolman
Westmoreland County

SICK POND!

One evening last month I received a call from a gentleman who wanted to know what he could do about his farm pond's "*Allergy*." I wondered if he could have meant "*Algae*." After giving him some tips on this he thanked me and said that this was the worst "*Allergy*" his pond has ever had.

Rick Grube
Special Waterways Patrolman
Lawrence County

FIRST EVER!"

We have had the pleasure of meeting many folks from the news media; newspaper, radio, and television, in our daily contacts. This past week

we had the distinct pleasure of meeting yet another. Ed McGinnis, from the State of Arkansas, producer of a national TV show, dealing with the outdoors, spent a week on the Juniata River. To say he was impressed with the many splendid programs of the Pennsylvania Fish Commission, especially our musky program, would be an understatement. The fact that he caught his first muskie, ever, in the Juniata River, is worthy of note.

Richard Owens
Regional Supervisor
Southcentral Region

STILL HANGING IN THERE!

Some sportsmen and I were taking a break from stream improvement work on Fishing Creek. We were standing on an old covered bridge, just above Benton. The guys were checking the structure, most of which was put together with hand-cut parts and wooden pins. We wondered why this old bridge withstood the powers of nature, when her modern replacements, made of steel and concrete, were washed out. Maybe our modern engineers should take a few pointers from their forefathers.

Arthur A. Herman
Waterways Patrolman
Montour and Columbia Counties

ONE'S ENOUGH!

On the first day of the regular small game season, 13-year old Duane Stacko and his father came to my headquarters quite excited, stating he had caught a junior citation largemouth bass and wanted me to check it. I was most surprised when he lifted a 19¼" largemouth weighing 3¼ pounds from the trunk. He stated he had caught it on the fifth cast and decided to quit after landing the fish. After I had taken a picture or two, he was happily on his way home.

William Mantzell
Waterways Patrolman
Washington County

GREAT YEAR

During the last part of October, and the first part of November, the fishing at Koon and Gordon Lakes was quite interesting. More than the usual number of fishermen turned out. I noticed that there were fishermen from Maryland, West Virginia, Virginia, and Ohio, along with those from Pennsylvania. Several legal muskies from Gordon Lake, along with walleyes, beautiful yellow perch, and largemouth bass were taken. Koon Lake gave up the most largemouth bass; on several occasions, a number of limits. The bass were mostly in the fifteen to eighteen-inch class. One five-pound bass taken by a fisherman from Cumberland, Maryland. This fisherman has been fishing the two lakes for twenty-two years and claims this was his best year. He catches on the average of two to four largemouth bass every trip and only keeps the large ones.

On November 17th it was noticed that the large trout from Koon Lake are going up the small streams. It is common to see dozens of these trout working up the streams most every year; one can see trout of all sizes.

William E. McInay
Waterways Patrolman
Bedford County

WOULD YOU BELIEVE . . .

While on duty at Walnut Creek Station on Lake Erie, Officer Sowers and I were closing down at 10:00 p.m. One auto remained in the parking lot and we went over to tell them that it was "closing time" and that they would have to leave. A lady and her two children were the occupants. She rolled down her window before I could say anything and said, "Do you know what we are doing?" I said, "No." She said, "We are watching for UFO's. Everybody else is seeing them but us!"

Bernard D. Ambrose
Waterways Patrolman
Elk County

TROUT POACHING—

I have had more calls this past year about illegal fishing in the small brook trout streams than any previous year. I received information from 5 different sources on one weekend and two reports the following. I guess that deer poaching isn't the only illegal sport (?) that is going on.

Stanley G. Hastings
Waterways Patrolman
Cameron County

FLY TYING

The Robber Fly

*A relatively unfamiliar pattern—
but one you'll want to try*

by Chauncy K. Lively

photos by the author

FEW INSECTS are more fiercely predaceous than robber flies. They prey on other insects and their seemingly insatiable appetites sometimes take them in fearless pursuit of flyers larger than themselves, like dragonflies, which are daring predators in their own right. They know no fright of stinging insects such as bees and wasps; in fact, honey bees are among their favorite victims. A single specimen has been observed to destroy as many as eight moths within a twenty minute period.

Robber flies are terrestrial dipterans belonging to the family Asilidae, of which there are approximately 3,000 known species. They fit many descriptions, some of which have squat, hairy bodies resembling bees, while others may have long, slender bodies and look like damselflies. One of the more common robber flies, particularly in woodland regions, has a distinctively tapered, bare abdomen; a hairy head; large, strongly developed legs, and wings which lie flat over the back when at rest. The larvae may live in rotted wood, soil or in vegetable mold and no stage of this insect's life cycle has been observed to be aquatic; yet, the adults often seem to be attracted to water, possibly in pursuit of aquatic insects.

Our first notice of robber flies in large numbers came several years ago in Michigan, when we were fishing the Au Sable River in the heat of August. We had fished with good success the Lake Erie King pattern to represent some of the smaller, bee-like robber flies and snipe flies but the predominance of the big, tapered bodied species seemed to indicate the need for a specific representation because of its distinctive appearance. Curiously, many seemed to deliberately alight on the water, where they drifted with wings outspread at an angle. The trout reacted explosively with the same type of spirited rises which are common when grasshoppers are on the water.

The Robber Fly pattern shown in the illustrations is the result of our Michigan experience and in subsequent years on the Au Sable we have had some exciting hot weather fishing with it, used under conditions when terrestrials are indicated. Although I had seen robber flies in Pennsylvania I had never encountered them in concentrated numbers; consequently, the pattern went unused in our home state until some time later. Then, coincidentally, I heard from Russ Malone, skilled fly-fisher and fly-tyer from Matamoras, Pa., that he had encountered the big insects in quantity on the Lackawaxen River, in an experience similar to ours in Michigan. The news from Russ was welcome because it proved that the phenomenon was not peculiar to waters of the Midwest alone.

I have since used the Robber Fly in many parts of Pennsylvania and have found it productive on all but the open meadow streams, the environs of which are perhaps not favored by the naturals. I suspect the heavy concentrations of robber flies on water are more evident on large streams which flow through wooded areas; yet, I have had sufficient success with the pattern on smaller mountain streams to believe that the trout there, too, are familiar with the big insects.

Physically, the dominant feature of the robber fly represented here is its conspicuous abdomen, which, in the pattern, is simulated by a detached body of bound deer body hair. The bundle of hair, when compressed, should be about $\frac{1}{8}$ " in diameter at the butts. In binding the hair to the hook the hair should be positioned with the butts extending about $\frac{1}{4}$ " beyond the tie-in point. The first turn of thread should be rather firm, causing the butts to flare. Then wind the thread forward, through the butts and back again until the hair feels firmly set. This method does not require extreme tension on the thread and permits using thread of lighter gauge than normal for deer hair work, thus contributing to neatness without bulk.

A final note should be added for those fly-tyers who like to collect and preserve insects for future reference: *live robber flies should be captured in a net or in your cap, not in bare hands!* While they are not known to aggressively attack humans they can inflict a painful bite if not handled carefully.

TYING THE ROBBER FLY:

◀ 1. One of the more common robber flies.

2. Clamp a #14 or #16 dry fly hook ▶ in vise and bind cream or gray tying thread at mid-shank. Clip a small bunch of natural deer body hair from the hide and comb out fuzz and short hairs. Bind hair by its butts (see text) to shank.

◀ 3. To form detached body wind thread around hair in spaced turns to form a tight bundle, increasing tension with each turn to achieve taper. When desired body length is reached wind thread back to hook and whip-finish in front of hair butts. Cut and remove thread, then trim hair butts.

4. Trim off tips of hair, tapering end ▶ of body to a point. Now bind black tying thread to shank and tie in two strands of peacock herl as shown.

◀ 5. Wind herl several turns and bind the free ends underneath shank, out of the way.

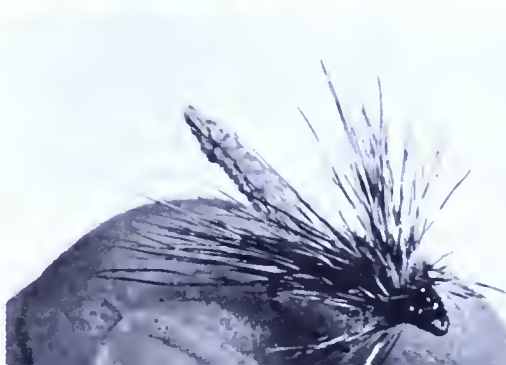
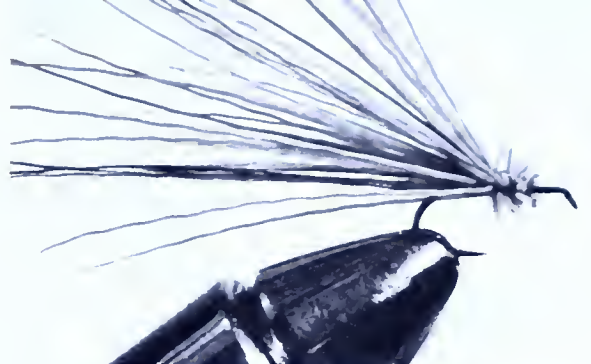
6. For wings tie in a small bunch of ▶ thin, brown deer hair with well-marked tips, securing with several firm turns of thread. Half-hitch. Tips of hair should extend nearly to end of body. Trim hair butts on a bevel, tapering to eye.

◀ 7. (Top view) Separate hair into two equal halves and make figure 8 turns around base of wings to set them in a flat V. Then select one each brown and grizzly hackles of good quality and with barbules about twice as long as hook gap. Strip off unusable lower barbs and tie in hackles together by their roots, on edge and with glossy sides facing bend.

8. Wind ends of herl forward and tie ▶ off two turns in front of hackles. Trim off excess herl.

◀ 9. Wind the hackles individually, the second through the first to mix the colors, and tie off. Trim off waste hackle tips and build a neat head with thread. Whip finish and cut thread.

10. The Robber Fly is completed by ▶ trimming a V from underside of hackle and applying head lacquer to finish windings.



CO-OP NEWS

by Bill Porter

A monthly feature devoted exclusively
to Pennsylvania's Cooperative Nurseries—

*Cooperative Nurseries are fish rearing facilities
built and maintained by organized sportsmen
... at their own expense.
Fingerling fish provided by the Pennsylvania Fish
Commission are reared and released in public
waters of the sportsmen's choice
in accordance with policies prescribed by the
Fisheries Division's Cooperative Nursery Branch,
Robert H. Brown, Chief.*

Cooperative nursery club operators and their families were given the red carpet treatment last October at the Big Spring Fish Cultural Station at the head of the Big Spring, Cumberland County.

A crowd of about 150 guests visited the automated installation on a perfect day for the event. The registers showed 24 clubs having representatives present. A partial listing included the Blairs Mills Sportsmen—Huntingdon County, Camp Hill Nursery—Cumberland County, Chambersburg Rod and Gun Club—Franklin County, Greater Ferndale Sportsmen's Association—Cambria County, Keystone Fish and Game Protective Association—Northumberland County, Lititz Sportsmen's Association—Lancaster County, Marysville Sportsmen—Perry County; and that was only one page of the register.

Other counties and clubs represented were Tioga County's Morris Rod and Gun Club, Queen City Trout Rearing Committee from Lehigh County, Salisbury-Elk Lick Hunting Club from Somerset County, West Chester Fish and Game from Chester County, and Upper Dauphin County Conservation Club from Dauphin County with more to add to the list if space would permit.

Bob Brown, Chief, Cooperative Nursery Section, was in charge of the event with Wayne Weigle, superintendent, Big Spring Fish Cultural Station, playing the role of host. Assisting Bob were his two fish culturist experts, Paul Byers and Stan Bechtol. Ken Corl, Chief, Trout Production, and Fred Johnson participated in the program with members of the Big Spring staff performing a variety of extra duty services for the guests.

Dick Owens, supervisor of the newly created Southcentral Region, was on hand with Waterways Patrolmen Perry Heath, Cumberland County,

and Ben Leamer, Perry County, along with deputy Jim Cree, Cumberland, lending assistance as needed.

The visitors were divided into a number of small groups and given a thorough tour of the automated "fish factory." From egg-stripping, to automatic feeding, to the mechanics of pumping and water purification systems—not an item was missed. Cold cider and pretzels were available at the half-way point in the tour to refresh the guests as they moved about the installation.

The tour seemed well-received by the crowd in attendance and many, by their comments, were amazed at the unique features of the modern hatchery. The Fish Commission's Big Spring property encompasses 242 acres, including portions of the Big Spring downstream to the stone arch bridge. The hatchery buildings and raceways are situated on about 20 of the total acres above the spring.

Considerable work has been done on the 3.4 miles of stream and the guests were invited to drive down the watercourse on their way home to note the stream improvement devices, parking facilities, restoration of the stream bed and elimination of marshy areas.

On the tour, visitors were shown the 8,000' of controlled raceways and ponds, the various automated buildings complete with the latest equipment, including light tower tanks where production and growth rate can be stepped up over nature's normal schedule.

Operating at peak capacity, the plant uses about 4.5 to 11.5 millions of gallons of water per day. The "plumbing" to get this water up from its source to the raceways was of particular interest to cooperative nursery operators concerned with intake and distribution systems. As part of the same system, the filtration and purifying plants were of equal interest to

the sportsmen. Proof of the success of the system lies with the natural brook trout reproduction still occurring in the upper reaches of the stream—a fact pointed out to the visitors.

Guests on the tour went home impressed with the efficient plant, the courteous service of the Fish Commission personnel involved, and the cooperating weather that set the whole tour in the right perspective. In fact, the whole afternoon was reminiscent of a similar tour—equally successful—of the renovated Huntsdale Fish Cultural Station a year or so ago. Cooperative nursery operators, Fish Commission personnel, improved facilities, and the weather—all got together on that one, too, for a good afternoon.



Crowd of cooperative nursery folks gathers at Big Spring Hatchery above. Below: Group witnesses electro-shocking demonstration.



BOATING

Questions & Answers

by Capt. Jack Ross

From E. M., Pittsburgh:

"My electric fishing motor has given me many hours of enjoyment, and I consider it a very good investment indeed. However, my battery never seems to last more than about five hours, and this cuts the fishing day very short. What can I do?"

—A storage battery, like a tank of gas, will give you just so many miles. Five hours of running is about all you can expect from most moderately-priced batteries, so you have to add some additional 'fuel' if you want a full day's operation. A battery with more capacity (a higher ampere-hour rating) will push your boat longer, but one that will have enough stamina for a full day may weigh more than you care to lug around. Your best bet would probably be to buy another battery like the one you have, and change over at noontime.



From C. R., Kittanning:

"Can you tell me why none of the gas stations have machines to clean spark plugs any more? Also, is there any kind of chemical on the market that will clean plugs?"

—The answer to both questions is that spark plugs are simply not worth cleaning. As a plug works, it gets tired, and by the time it needs to be cleaned, it is usually ready for replacement, assuming that the engine is properly tuned. Even before the last round of gasoline price hikes, it just didn't make sense to clean and re-gap an old plug, because it wastes fuel. Once the shape of the electrodes has changed, and the insulation has deteriorated, no amount of cleaning or setting will restore the original performance. A lot of boatmen change plugs twice a year, and the savings in fuel more than pay the cost.



From W. L. H., Butler:

"My fiberglass sailboat was damaged in a trailering accident, and

part of one gunwale was crushed, the stern corner is cracked across, and the centerboard trunk is chipped. Would you advise repairing this hull, or is it too far gone?"

—From your description, I would judge that the boat is a total loss. One of the difficulties with fiberglass is that no one has figured out a successful method for testing the strength of the stuff, even in a new hull. Damage such as you describe, which affects the structural integrity of the hull, may be relatively easy to hide, but it would be impossible to guarantee a successful job as to strength. Your insurance company (sure hope you have one) will probably not argue about declaring a total loss in this case.



From L. J., Pittsburgh:

"Should the gasoline tank on an inboard boat be full or empty over the winter—I have heard it both ways, and there seem to be good arguments for either method?"

—A full tank is better, mainly because there is no room for air to breathe in and out with temperature changes, causing condensation of moisture inside the tank. Also, an 'empty' tank always contains a gallon or so of gasoline, and a large quantity of fumes which will probably explode like a bomb if a spark should happen by. A completely empty tank, bone dry and sealed from the atmosphere, would be fine, but it's not very practical to get one that way. An additional benefit from a full tank, in these days of rising prices, is that the fuel bought last fall is likely to be cheaper than the first tank in the spring.



From T. B., Warren:

"Is there such a thing as a motorized iceboat?"

—If there is, it probably looks a lot like a snowmobile.

From K. M. F., Malvern:

"What is the meaning of the small craft warning displayed by the Coast Guard along the New Jersey Coast? About half the time, the sea is calm when the warning is up."

—The small craft pennant is an advisory that fresh winds or moderate seas, or both, may be expected within the near future, if not actually present. The warnings are displayed for a considerable stretch of coast; local conditions are frequently either better or worse than those predicted. The small craft warning is simply one of the factors that an experienced boatman will consider when planning a cruise. Small open boats have often been swamped in inlets when there was no small craft warning up nor any need for one; conversely, large, powerful boats under skillful handling may be perfectly safe even when a gale warning is flying. The choice whether to go out or stay in is up to the skipper—so is the responsibility . . . should anything go wrong.



From M. S., Pittsburgh:

"I tried the combinations of firing orders you gave me (September, 1973 Angler) and the engine still doesn't run right. What now, Captain Jack?"

—If none of the four firing orders works, you have apparently upset the engine considerably in the course of your overhaul. Since this is an overhead cam engine, the easy way out is to take off the valve covers and the distributor cap, turn the engine over slowly, and mark the location of the distributor rotor with the number of the cylinder with both valves closed. You can then rearrange the plug wires, and be sure that you have the right firing order. If the engine still backfires and misses, just disregard the timing mark on the flywheel and twist the distributor around until it smooths out. If the problem still persists, call a mechanic.

FISH TALES



DOUGLAS DRESSLER, of Port Royal, landed his 43-inch, 28½-pound musky last July from the Juniata River near Port Royal. It was caught on a deep running rebel and made him a Husky Musky Club member for '73.



This young lady, MICHELE NOVATNAK, 10, of Hawley, holds the 21-inch largemouth bass caught while fishing at Promised Land Lake, Pike County, last July. She used spinning gear and a worm.



DON WELLS, 14, of North East, holds this beauty—a 26½-inch, 6-pound rainbow trout caught in Twenty Mile Creek, Erie County, last April. It hit a nightcrawler and earned him a Citation.



GARRY KAYTOR, 13, of Harrisburg caught these nice trout—an 18-inch, 2-pound rainbow and a 19-inch, 2-pound brownie, last April from Manada Creek. He used spinning gear and worms.



ALVIN FETROW, 13, Etters, and CRYSTAL GRIFFITH, 10, York Haven, were fishing the Susquehanna River, York County, when they each caught a 31-inch 15-pound carp using nightcrawlers.



DAVID DANOWSKI, 14, of Erie, caught his 34-inch, 10¼-pound musky last June from Presque Isle Bay. He was using a June bug spinner and received a Husky Musky Hon. Mention and a Jr. Citation.



JESSE ROVERANA, 10, of Kunkletown also landed a 31-inch, 7-pound musky last June. He made the catch at Beltzville Dam and received a Husky Musky Honorable Mention and a Jr. Citation.



A York angler, KEITH BAUBLITZ, 16, holds the 23-inch, 5½-pound largemouth bass caught while fishing Lake Redman, York County, in August. He was using spinning gear and worms.



DOUG FEDRICK, 15, of Saegertown, landed his 18-inch, 3-pound largemouth bass while fishing Crawford County's Tamarack Lake last June. He was using spinning gear and a popper.



BETTY RINKER, of Juniata, holds her catch—a 38-inch, 12¾-pound northern pike—taken from Glendale Lake, Cambria County, last July. She was spinning with a rapala.



BRADLEY GOOD, 14, of Hanover, caught his 18¾-inch, 3½-pound largemouth bass last June in York County's Codorus Creek. It hit a nightcrawler fished with spinning gear.



DAVID MCGINNIS, 11, of Crafton, was fishing Pymatuning Lake in Crawford County last June when he hooked and landed this 24¼-inch, 5¼-pound walleye. It hit a nightcrawler.



This young angler, NICHOLAS GARCIA, 11, of Bethlehem, caught his 17-inch, 2-pound brook trout with spinning gear and a worm while fishing Monocacy Creek in Northampton County last June.



DAVID LETRICK, 15, of Clarksville, holds his catch—a 19-inch, 3½-pound largemouth bass—taken from Tamarack Lake in Crawford County last June. He was using spinning gear and a jig.



Young ROBERT DUNLAP, 8, of Erie, proudly holds the 19-inch, 3½-pound smallmouth bass taken from Lake Erie last August. He was using spinning gear and a nightcrawler and earned a Citation.



A Reading youth, CRAIG MILLER, 13, made his catch last July—a 20½-inch, 4¼-pound largemouth bass—in Berks County's Ontelaunee Lake. He used spinning gear and a purple rooster tail.



TOM CASZATT, of Sharon, landed this 42-inch, 21-pound northern pike while fishing Shenango Dam in Mercer County. He was using spinning gear and a swiss swing and earned a Citation.

KEYSTONE CAMPING

by Thad Bukowski

CALEDONIA STATE PARK

U.S. Route 30 splits Caledonia State Park campgrounds. It identifies a primitive area south of the road which is open all year round for those who don't mind camping in inclement weather. This area is important for those interested in fall and winter hunting, and early spring trout fishing.

Costs of camping at the south area is \$2.00 per night with no designated spots, except near available tables. A modern area, north of U.S. 30, is also available from April to the end of October. It has 136 sites including flush toilets and showers and the cost per family is \$3 per night. It has designated sites for tents, trailers under 20 feet, and those over 20 feet in length. The primitive area can

house 60 campers and also take both tents and trailers. A group camping area is also located in the park and can accommodate four groups and up to 100 campers with reservations accepted and recommended.

Caledonia State Park is located in Franklin Township, Adams County and Green Township, Franklin County and the park spreads over 1,444 acres. The park is notable in that it includes the state's only department-owned 18 hole public golf course (717-352-8916) and the Graeffenburg Inn begun as a hostelry over 150 years ago. The Totem Pole Playhouse, a summer stock theater, also located in the park, offers daily entertainment during the summer with current information on functions available at that time (717-352-2164).

Excellent camp bulletins and maps are available for the camper which

describe added hiking trails and show various facilities for recreation in the nearby countryside. The famous Appalachian Trail traverses the central portion of the park and a self-guiding hiking trail of history is available and shows over 10 miles of scenic hiking possibilities.

A beautiful trout stream (browns and brookies), with a nutcracker name, the west branch of the Conococheague (pronounced: 'Konica-jig') Creek, flows through the heavily shaded campground and park area. Not too far away, along U.S. 233, Furnace Dam also gets good trout stockings and is fished heavily. The Conococheague trout fishing in the park includes a restricted angling area (from the park swimming pool to Rt. 233) which is open only to youngsters 12 or under and paraplegics.

The pool is the center of summer activity and was built to hold 1,160. It opens on Memorial Day and remains open until Labor Day with daily activity set from 12 noon to 7 p.m. As in other state parks, pets and alcoholic beverages are prohibited. One car per campsite is also the rule.

The scenic beauty of the Conococheague Creek, right, as it flows through a forest of hardwoods in Caledonia State Park is unsurpassed. Below: Furnace Dam provides good trout fishing. Though small, shore fishing is popular.





"Crystal Clear"

Photo by Russell Gettig, Staff Photographer

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WE'RE ALL IN THE SAME BOAT



It is our contention that Pennsylvania has assigned the administration of its recreational boating program to the proper agency, the Pennsylvania Fish Commission. In most states—and we meet with representatives of them all, to exchange views—boating interests are lost in a large conservation or transportation department, or worse, in some bureaucracy whose prime functions are far-removed from the water. In their order of priorities, recreational boating is at the bottom of the totem pole.

We receive many letters from *Angler* subscribers voicing both criticism and praise for our programs. The Leaky Boots column indicates a constant tug-of-war between those who are critical of what appears to be (to them, at least) an overabundance of boating articles in our magazine and those who, just as fervently, indicate their approval of the inclusion of boating information. Recreational boating in Pennsylvania is a vital function of the Pennsylvania Fish Commission, and if the *Angler* is to be the "Keystone State's Official Fishing & Boating Magazine," then these articles must surely appear as material becomes available.

But that's just a legal aspect. More importantly, it's a basic fact that in Pennsylvania the majority of registered motorboats, and the preponderance of unregistered rowboats, johnboats, canoes, etc., are used by fishermen. Few of us, who consider ourselves fishermen, have not at one time or other, used a boat from which to fish. Yet, when asked what we did over the weekend, our immediate reply is that we spent a most enjoyable weekend *fishing*—when in fact, we probably spent more time *boating*—getting to and from a favorite hole, or moving about from one spot to another. We were, in reality, *boating*—though we used our boat only as a platform from which to fish!

The problem, as I view it, is the traditional hang-up which results when we view a subject from our own limited framework of experience. Depending upon our point of view, at the mention of the topic of boating, we may visualize a lazy yacht trip down the Delaware Bay, an exciting day waterskiing on some inland lake, or perhaps a sailboat race and a subsequent evening at the yacht club bar. If we are "platform" boaters only, perhaps the mention of boating brings to mind only the clown in the speedboat who passed too closely and noisily while we were fishing from our canoe! But aren't these activities all a part of the total boating picture?

We are charged with responsibility for the entire recreational boating program. We become involved with boating in all its forms: from float tripping to kite skiing; from canoeing to hydroplane racing. It falls upon our Bureau of Waterways to see that necessary standards and regulations are established and then enforced in a uniform, intelligent, and fair manner. Furthermore, it is this bureau's responsibility to make available to the public free and comprehensive boating safety courses at convenient points across the state and to ensure that monies available to us are wisely spent to provide free access, including launching ramps and parking lots, along the waterways of the Commonwealth.

It is also our charge to have qualified officers, equipped with efficient patrol boats, to protect the inalienable rights of all users of our waterways—fishermen and boatmen alike—to enjoy this wonderful form of recreation. We make no attempt to distinguish between the so-called "fisherman/boater" or "boatman/boater." Rather, we try to provide all with a maximum opportunity to "do their thing" on the water—so long as they do not infringe on the rights and enjoyment of others, or "insult" the environment.

A five-man Boating Advisory Board, appointed by the Governor, recommends special regulations to handle special problems which in turn are carefully considered and weighed by our Commissioners. There are bodies of water restricted, in whole or in part, either by a horsepower limitation, type of motor (e.g., electric only on smaller lakes) or zoning, the latter with regard to speed or activities permitted in specified areas. These restrictions are instituted in the best interests of all and such areas are monitored continuously by our field personnel to assure that they satisfy the desires of the majority of the users over the greater part of the boating season.

So in spite of the tug-of-war, since we're all really working for the same broad goals, let's respect boating for what it is—cruising, sailing, canoeing, waterskiing, fishing, waterfowl hunting, float tripping—and place this recreation provided by boating in its proper perspective in our water environment.

RALPH W. ABELE
Executive Director

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COVERS: On our front cover this month we show Roland Romberger making a
last ditch effort at the walleyes and muskellunge in Penns Creek, near its mouth
below Selingsgrove. On the back cover, Robert Eby, who was fishing less than
a football field downstream turned his efforts toward that nice catch of suckers.

Photos by the Editor.

JAMES F. YODER, Editor

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Don't scorn the suckers! Fishing for them helps fill those dull days before trout season opens and if you know how to prepare them, they're delicious too!

Fishing Outlook

by Stan Paulakovich

Trout fishermen may look down their noses at him and musky fishermen think of him only as bait. But, when it comes down to real honest-to-goodness March fishing pleasure, there is no other fish that fills the void like old "rubber lips" himself, the sucker.

Here in Pennsylvania we have suckers in our lakes, ponds, streams, and rivers. Big ones too, as is verified by the 28 inch 9 pound 12 ounce champ that was taken from French Creek in 1938. One that stretches the tape to about 24 inches is certainly worth photographing.

Contrary to what most people think, suckers are a clean water fish. Where they are found, you can bet that the water quality is pretty good. Prolific spawners, the young-of-the-year provide a valuable forage crop for all of the gamefishes.

The sucker is not cherished as table food, and this is a shame. For in the early part of the year the flesh is solid, milky white, sweet and savory. Prepared properly, the meat flakes off in huge tasty chunks . . . just like the haddock you get at the market for two dollars a pound.

Because of the many hair-fine bones, the sucker is difficult if not impossible to fillet. Most of these fish are prepared in one of two ways. First way: Clean and scale the fish and split it up the center along

the spine. Do this from the inside—it will then lie flat. Soak it overnight in a salt solution. After drying it off, smoke it slowly over hickory or apple wood chips. They are as good as many of the more famous "gourmet" fish.

The best way to prepare them, however, is to make fish cakes out of them. Some parboil fish lightly and pick the flesh away from the bones, others cut rough fillets from the fish, including the fine bones. Either way, the flesh is mixed with crackermeal or bread crumbs and seasoned to taste. It is then run through a meat grinder and formed into single portion sized patties. Pan fried, or deep fried, to a crisp golden color, they are an unbeatable treat. The fine bones have been "fried out" or ground up. Many sucker fishermen catch and prepare enough suckers in the spring to last them all year.

Several years ago a sucker fisherman was observed being very selective with those fish he put on the stringer. Every fish caught was checked to see if it contained eggs. The females were kept and the males returned to the water. The angler said that several years before, he had tried eating sucker roe and he found that the texture of the roe was smoother than that of shad. The eggs were much finer and had little of the oily taste that is associated with shad roe. Dipped in meal and fried lightly in butter,



Take the youngsters along on a sucker fishing trip; it's a good way to break them in to the fine sport of fishing. The shoreline is seldom crowded and chances are you'll be able to locate some good sucker fishing not too far from your own backyard.



they were a delicacy. Each year after that, he made sure he got his share of sucker roe to freeze for future meals.

In the spring, when melting ice and snow raise and roil the water, the sucker begins its spawning trip and *now* is the time to catch them. The females heavy with roe, and the males bursting with milt, glide ever upstream. They will attempt to get through the fastest riff or small races and over low dams to complete their life perpetuating journey.

Suckers are not difficult to catch now. The waters are discolored, which is what they like, being somewhat nocturnal. They feed on the bottom, so all you have to do is put your bait there. The bait? Small worms. Dig them from the compost pile or similar place where warmth from decaying organic material prevents freezing. The smaller the worm, the better. Put several on a size 10 hook in a glob.

Use a heavy enough sinker. The bait should stay in one place. Fly rods, casting rods, or spinning rods, will all serve the purpose. The lighter the equipment you use, the more sport you will have. Suckers are not noted for their fighting ability—most of the time they come in spinning like a pinwheel.

Suckers can be caught in the lakes and ponds during the spring, but it's tedious work. Some of the better streams will be closing for the trout season so your best bet is in our rivers; all of them are good.

Concentrate at the mouths of tributary streams where clean clear water meets the discolored water. Little backwaters that offer suckers a resting place are good fishing spots. At the foot of heavy riffles, or at the base of dams, where the sucker is physically halted in its upstream migration is another ideal spot.

Take the kids out, cast out the bait, prop up the rods, sit down, relax and enjoy the sunshine and the companionship. Wait for that throbbing tap, tap, tap, and you're in for some fine pre-season pleasure.

Over on the Allegheny River they catch one of the varieties of red horse suckers. These fellows get to be big. Two feet long is not an uncommon size. They normally have a red tinged tail and fins. This coloration is more pronounced during the spawning season. A small variety of the red horse sucker is found in the Juniata and Susquehanna drainages. Common white suckers are caught all over the state. The white sucker doesn't get to be quite as big as the red horse. Still, many of these will surpass the twenty-inch mark. They provide a springtime fishery that is something to brag about.

If you are an itchy fly rod fisherman, try this: Tie on a size 8 or 10 shaggy muskrat nymph and "inch it" slowly along the bottom. Suckers do eat nymphs and aquatic insects and every once in a while one will pick up your lure and you've got him. Good sport, and good trouting practice too!



FROM OUR WOODLAND PHILOSOPHER IN "GOD'S COUNTRY"—

Greetings of Health & Happiness, to you and yours. Yes, Ralph, Mother Nature has always been a Beautiful Old Lady, to us to whom sees Life in the same Light and too bad Man don't help her and Learn to Live with her more and not Pollute and destroy, all of Natures Wonders for Mans Future, as when I look into our clear Beautiful Mountain Trout Streams, at Fish in our deathly quietness and have the Patients to study each one of Mother Natures Children, makes a great feeling way down deep inside, to some of us. Then we see the driftwood and Natures Beauty all around it, except that old worn out tire and the broken brown bottle, Keeping company with a half a dozen empty Beer cans, makes us Wonder, why some must go against all the Laws of Nature. I Hope some of these Litter Bugs reads as I do and would get our Wonderful Pennsylvania Angler and Learn to Live with Dear Old Mother Nature, before she gets much older, I've Known her for nearly 80 Seasons and its been the Greatest of Pleasure, to tread the same trail and streams and Know this grand Old Lady we Honor and try to help and I for one know, You My Friend, have helped this fine Old Lady in every way possible. Keep the Good Work up Ralph and "God's Guidance."

For Ever Yours,

FRIEND BEN JAMES

REPAIRING WADERS

I am writing about the problem of James R. Keller, in the November issue. I had the same problem, only my waders were rubberized cloth and the rubber cracked and leaked. I know you can buy liquid rubber in tubes, but in my case it would cost more than the new waders. So, I marked the area that was cracked, turned them inside out, and painted the cloth with liquid Barges cement

that I bought by the quart in a leather supply store at the cost of \$2.50 a quart. A quart of this cement will last a long time and give many repairs. This is the best cement to use when putting carpet on the soles of boots or wading shoes as it is waterproof, used according to directions.

I believe if James R. Keller would put several coats on the inside of his waders, it would waterproof them. When not in use, hang them up by the boot ends so that they are not folded or creased as it won't break the seal and they will last quite a long time.

He can use this cement on the outside to cement a thin piece of rubber over cracks. I did not put any repairs on the outside of my waders. Hangers can be bought or made very easily. Too bad he doesn't live closer as I could give him a set made out of pipe and strap iron that can be installed on the wall for this purpose. I don't know whether you will forward this letter to him or not but I hope whoever reads it can understand it.

JOHN J. KELLER
Allentown

MORE ON WADING

In regards to the controversy concerning whether or not wading should be allowed in the FISH-FOR-FUN areas, I would like to draw your attention to an article by Mr. Ray Ovington on page 14 of the Autumn 1973 issue of *Trout* magazine, published by TROUT UNLIMITED. The article entitled "Is Too Much Wading Destroying Our Trout Streams?", presents a different angle to this controversy. Mr. Ovington believes that a wading angler, no matter how careful, inevitably destroys the bottom habitats of stream aquatic insects as well as the insects themselves, with obvious effects on the fish populations in the streams. While this letter is not intended to be a synopsis of Mr. Ovington's article, which is excerpted from his book *Wet Flies And Nymphs*, that is the general idea presented. Having added fuel to the fire and casting my vote for NO WADING, I'll move on.

I would like to commend the FISH COMMISSION on a very fine, enlightened program of management. During my four years at Gettysburg College I was able to acquaint myself rather thoroughly with Pennsylvania's programs, and I was quite impressed with all facets. Being a

rather die-hard trout fisherman, one could find me at Falling Spring, or Allenberry, anytime of the year, and after my fingers and ears thawed out, I was grateful that the FISH COMMISSION provided me with such opportunities to enjoy fly-fishing year-round, with such rewards as trophy-size trout (which I knew were there!). Now that I have graduated, I miss these opportunities and intend to fish Pennsylvania as much as possible. And, if I may put in a plug, all serious trout fishermen should belong to TROUT UNLIMITED. There is no other such organization so dedicated to the ideals of trout fishing and management. If you are concerned with the way fishing seems to be getting poorer, which is a common complaint, then join and make waves.

Keep up the fine effort. If all state agencies were as well run as the PENNSYLVANIA FISH COMMISSION, the situation across the country would look much brighter.

BRUCE E. MATTHEWS
Fayetteville, N. Y.

CONVERT!

At the beginning of the 1973 spring fishing season I took up the great sport of fishing. Starting with what you anglers of many years call "panfish." I thought it was great, catching a bluegill or a crappie. Well, toward the end of the summer, I went fishing for bass. My first bass was a little over 15". When he hit my bait (soft-shell), I all but yanked him out of French Creek where I was fishing. Boy, was it fantastic to land a smallmouth bass! The fellow I was with really laughed, saying that I had caught a "fair-sized" smallmouth, but I was really happy. As the month went on, I caught more smallmouths up and down French Creek near the area where I caught my first bass, some smaller, and some a little larger. Well, one evening I was at the same old hole and my friend came down to see how I was doing. I hadn't caught but one undersized smallmouth. He said he was glad he hadn't brought along his pole. Then it happened—like a big tidal wave my line tightened. Whatever was on was huge to me—then it broke water. I could see it was a bass and after about ten or fifteen minutes, I landed the fish. *It was big—to me.* My buddy (Bob Hohn of Cochran) measured it 18½" by 5½" at the middle. He went crazy saying—what a real nice fish it was. So I was a happy angler

all smiles and proud, a nervous wreck, but still happy with a real sick friend who had not brought his pole!

Could you tell me if this fish qualifies me for one of your Citation awards? I have a picture of the fish and would be happy to send it to you as proof. And, could you tell me if this smallmouth was a good size . . . as the "old pros" go? I am a subscriber to the Pennsylvania Angler and it is great. Keep up all the fishing tips. At 24 years old, and a beginner, I need them.

JEFF MOSBACHER
Meadville

Let's put it this way—your fish is an inch and a half short of being a citation catch, but I've never witnessed anyone throwing back an 18½ incher! That's a good catch in any book. Ed.

HOW IS IT DONE?

I wish some advice on keeping nightcrawlers. In the spring, I gather several hundred when plowing my garden. They keep well for four or five weeks in a tin tub and garden dirt—after that, they die. We are retired and go fishing most every week. Please help us.

MRS. H. R. BRUSH
Johnstown

How lucky you are—going fishing every week! We've dug up (no pun intended) the following from the files of our Office of Information. Authorship is unknown, but it sounds like reasonably good advice so we're printing it for the benefit of our readers. Ed.

KEEPING EARTHWORMS FOR BAIT

For raising worms outdoors, use wooden boxes, 14 by 18 by 6 inches, stacked together but held apart by small blocks. This arrangement in tiers provides ventilation, drainage and easy access for watering. The boxes should be supported above the ground on a base about 6 inches high. When a box is set flat on the ground the wood rots and worms may escape and burrow into the ground.

Material for filling the boxes may be one part stable manure, one part screened topsoil and one part peat moss. A sprinkling of corn meal or mash may be added. If mash is used, the proportion should be about ½ to 1 pound for each cubic foot of filler material. If corn meal is used, about ½-pound for each cubic foot of material is sufficient. The mash

or corn meal provides a ration of carbohydrates, proteins and fats for the worms so that they will be well-nourished. In order that the mash or corn meal can be uniformly distributed, it should be added before the other material has been wet.

A layer of alfalfa or other hay should be placed in the bottom of each culture box. This improves drainage, prevents the compost from adhering to the bottom of the box and is favored by the earthworms as food. Each box should be about ¾ full of the prepared culture material. Five hundred breeder worms should be placed in each box and covered lightly with the culture material. One or two thickness of well-soaked burlap should then be placed in the box to conserve moisture and keep the surface of the material dark and damp. The worms should be watered once or twice a week, the time depending on the weather and temperature. In watering, a gentle sprinkling is necessary so that the surface of the culture material will not be disturbed. The food supply in the box should be checked from time to time. This is done by lifting out and examining a handful of soil. A satisfactory food for supplementary feeding consists of five pounds of commercial rabbit food (pellets), one pound of soybean meal and one pound of sugar. The pellets, meal and sugar should be moistened to form a soft, crumbly mass, then stirred into the culture material. The worms will also thrive on foods such as kitchen and garden waste, fruits and vegetables.

BASEMENT WORMERY

For raising angleworms indoors, a wooden box about 3 feet long, 2½ feet wide and 1½ feet high is recommended. Remember to seal the seams of the container so that the worms cannot escape. The top of the box should be fitted with a frame covered with hardware cloth. Having the frame hinged to the box and fastened with a small screen-door hook makes a very convenient setup. Several small holes should be drilled in some part of the bottom of the box for drainage. The holes should be covered with fine-mesh copper screen that is tacked to the container. If the worm box is in such a place so that it cannot be drained, place small cans under these holes to catch water. If the culture material has excessive moisture that cannot be drained it may sour and kill the

worms.

The preparation of indoor cultures is the same as for outdoor boxes. The same feeding and watering procedures also apply.

About 21 days after stocking the worms may be ready for harvest. Dump contents of culture box on smooth table and rake material into cone-shaped pile. Give the worms a few minutes to work down into the pile and then begin raking material from the top of the pile and replacing in box. This is the material that will have a lot of egg capsules and should be placed in a newly prepared box.

Culture boxes should be kept fairly dark, as earthworms work in darkness. Boxes should be moist but not soggy.

When worms are being used on the lake or riverbank, try carrying them in a small cloth sack filled with sphagnum moss. Dampen sack whenever necessary.

"MERRY MAKER"—

You have a piece on page 23 (December, 1973) that I don't believe. It says, "Keep quiet in a boat, don't thump your feet on the bottom or drop the anchor inside." Well, the only thing wrong with this sentence is: don't drop your anchor on the bottom of a *jon boat*, or you will have a *hole* in it! As far as stumping your feet, that won't stop the fish from biting. This past summer, most of the time I was all by myself at night and had a small radio along. Sometimes I had Sunbury or Selinsgrove radio on, and I was stumping, clapping my hands with the music, and I caught channel cats and bullheads every night. I was even stumping my feet on the ground while sitting down with a fishing pole (one on each side of me) and all of a sudden, one of my poles disappeared. I never did find it. I lost two this summer but now I have a small chair I sit on and on the legs in front of the chair, I have two chains fastened, one chain to each front leg of the chair. I don't lose any poles, reels or lines anymore! I have a swivel snap on each end of the chair, and eye bolts fastened to the chair, and to my fishing rods. I put two legs over the back of the middle boat seat and two in front of the seat—then I can stretch out my legs.

LUTHER W. DERK
Shamokin

One of these days a pair of channel cats might tow you around all night, Luther. Ed.

THE ANGLER'S NOTEBOOK



by Richard F. Williamson

FISH FACT: Virtually every species of fish is dark in color on the top, or back, and light on the belly. The dark color enables the fish to blend with the background when a predator looks down on it. The white belly blends with the light surface of the water when the fish is viewed from below.

Live minnows are the favorite lures of ice fishermen, but all kinds of natural baits will take fish in winter. In addition, weighted flies and small jigs, which are worked up and down in the water, are excellent lures, especially for perch, crappies, and bluegills.

Most fish school in deep water in winter, so shoreline shallows are rarely productive in fishing through the ice.

Sinkers in a variety of weights are a must in fishing through the ice with bait. The sinker should be no heavier than is necessary to get the baited hook down to the desired level, and the weight of the bait being used is a factor.

The size of the dry fly is just as important as the pattern . . . sometimes more so.

Wet flies for bass fishing have fatter bodies, heavier hackle, and bigger wings than are found on trout flies. Best bass wet flies are combinations of green, red, and yellow—spectacular colors that appeal to fish of this species.

Streamers are excellent for early season fishing. Raising and lowering the tip of the rod during the retrieve will give them a minnow-like swimming action.

Spinners take bass when made to move swiftly through the water, like fast-swimming minnows. But they also are deadly when raised to the surface and then allowed to flutter back down toward the bottom.

Suntan lotion and bug repellent are hard on monofilament lines.

Big bluegills are not too choosy in their eating habits. Good live baits include worms, crickets, grasshoppers, and small minnows.

Being long, slim, and powerful, pike usually make head-on attacks on their prey, so a spoon retrieved in a straight

line at varying speeds is a good lure. Bass, being stocky and capable of fast maneuvers in the water, can attack prey from any angle. An erratically darting lure is excellent.

Fish in shallow water are usually more active than those in deep water. The reason is simple: shallow water is their prime feeding area.

A small electric motor on a boat beats rowing or paddling when maneuvering into fishing position. The motor should be mounted on the bow, where it will pull the boat into position. It is difficult to maneuver a boat with a small motor mounted on the stern, pushing.

Bivisibles and spiders, which are good floaters and easy to see on the water, are top flies when fishing for trout in heavy riffles.

Two "hot spots" in any stream pool are the head of the pool, where a riffle flattens out, and the tail of a pool, the shallow area just above another riffle. Fish feed consistently in both of these locations, usually avoiding the main pool itself because of a lack of protective cover, in some instances, but mainly because of an absence of food being delivered by the stream current.

Hungry fish must expend a tremendous amount of energy to satisfy their needs if they have to work hard to get their food. But if they can lie in a pocket in a riffle, or in slow current at the side of a swift glide, the current will deliver food to them, and they are able to feed with a minimum of exertion.

Hellgrammites are top bass bait, but they also will catch trout, if the smallest ones are used on No. 10 or No. 12 hooks.

Hatches of aquatic insects are not important if you are fishing a small mountain or meadow stream for trout. Food supplies are limited in small waters, and the fish will take any insect or other food that comes within their reach. The so-called "attractor flies," such as the Royal Coachman or a Variant, are good small stream flies.

Stiff hackles with a sheen are the mark of a good dry fly, assuring the user that it will float high on the water.

Every angler has his own preferences in leader tippet strength, but for general use a nine-foot leader tapered to 3X (about four-pound test in nylon) is satisfactory. If flies smaller than Size 16 are used, a leader tapered to 4X or 5X is recommended.

Worms are good trout bait after a spring storm has slightly roiled and raised a stream. This is when worms naturally wash from the bank into the water.

Early spring is the time to find blue-gills in their spawning grounds, in shallow water. When the spawning is completed, and the water begins to warm, the bluegills move into deeper water and are more difficult to find and to catch with anything but small worms or other live bait.

Usually a mere tightening of the line by a lift of the wrist will set the hook and hold a trout that has taken a fly.

Thinly dressed wet flies, that is, with sparse hackle and wings, are best. Nymphs and developing natural insects, which wet flies represent, are drowned-out in appearance. They do not have big, spread-out wings, and their legs lie close to their bodies.

Try pocket fishing when your favorite trout stream is high and swift in the spring. Fish in patches of quiet water formed by rocks or other obstructions in the stream and in eddies along the shores, where the speed of the current slows considerably.

In a small, brushy mountain stream you can save a lot of time and effort by passing over the small eddies and pockets. In such streams, most trout are found in the larger and deeper pool.

Small, brightly colored flies, both wet and dry, are good lures for bluegills, crappies, and perch. Sometimes a fly is more effective if it is attached to a tiny spinner.

Don't hurry a hooked fish. Let it fight the spring of the rod until it can be landed safely.

Fish with a delicate hand. Avoid dis-turbing the water and careless wading. Work the lure or bait as delicately as possible. After dark, use a flashlight only in an emergency.

Right—Paul Lacey, Leslie Wood, and Mark Johnson stare intently at thousands of hungry brook trout. Below—Cliff Cass responds to, "Let me feed those fish!" by giving some dry feed to Christine Dube.



One Nursery Visits Another

by Carolyn Farrell

One cold, muddy spring day, twenty-five children of the First Presbyterian Church Pre-School, Harborcreek, Pennsylvania, visited several thousand lively coho salmon and brook trout in a nursery tended by the South Harborcreek Trout Club.

The children's eyes opened wide as they discovered 10,000 coho salmon and 6,000 brook trout crowded into spring-fed tanks inside a barn owned by David Cass.

"We won't be able to feed these fish much today," David Cass told the children, "we have to be careful about how much food they get."

The nursery-age children watched intently as David Cass pressed ground venison through a strainer and swished the strainer in the water.

"Look, these baby fish both want that piece of meat," cried one pre-schooler when he noticed two coho struggling for possession of some venison.

"Teacher, there's some dead fish in this tank over here," called another pre-schooler excited by his own discovery.

"I can't see anything," complained

another four-year old who was standing beside one of the higher tanks.

After the excitement of their discoveries had died down and the feeding was completed, the children moved outdoors. Clifford Cass, president of the recently formed South Harborcreek Trout Club and son of David Cass, showed the pre-schoolers twelve hundred one-year old brook trout in a small raceway on his property.

"We feed these trout dry fish food three or four times a day," Clifford explained to the children. "The more we feed them, the faster they grow."

"I want to feed the fish," cried Leslie Wood, a four-year old, up to her ankles in mud puddles.

"Me, too," cried almost everyone else.

Everyone got their turn throwing the dry feed into the chilly 40° water and delighting as the feed quickly disappeared.

"They're eating it! Give them some more," cried another excited pre-schooler as the trout surfaced to grab the feed and then dove with a splash.

"I'm supposed to keep track of

how much feed I give the trout," said Clifford Cass as he passed around more fish food to the children, "but the amount won't be very accurate this month. See this feed on the ground? Some raccoon has been taking the top off our feed pail and dumping it over."

"There's a dead fish down here, teacher. I want to take it home," called Christine Dube who was kneeling in the mud.

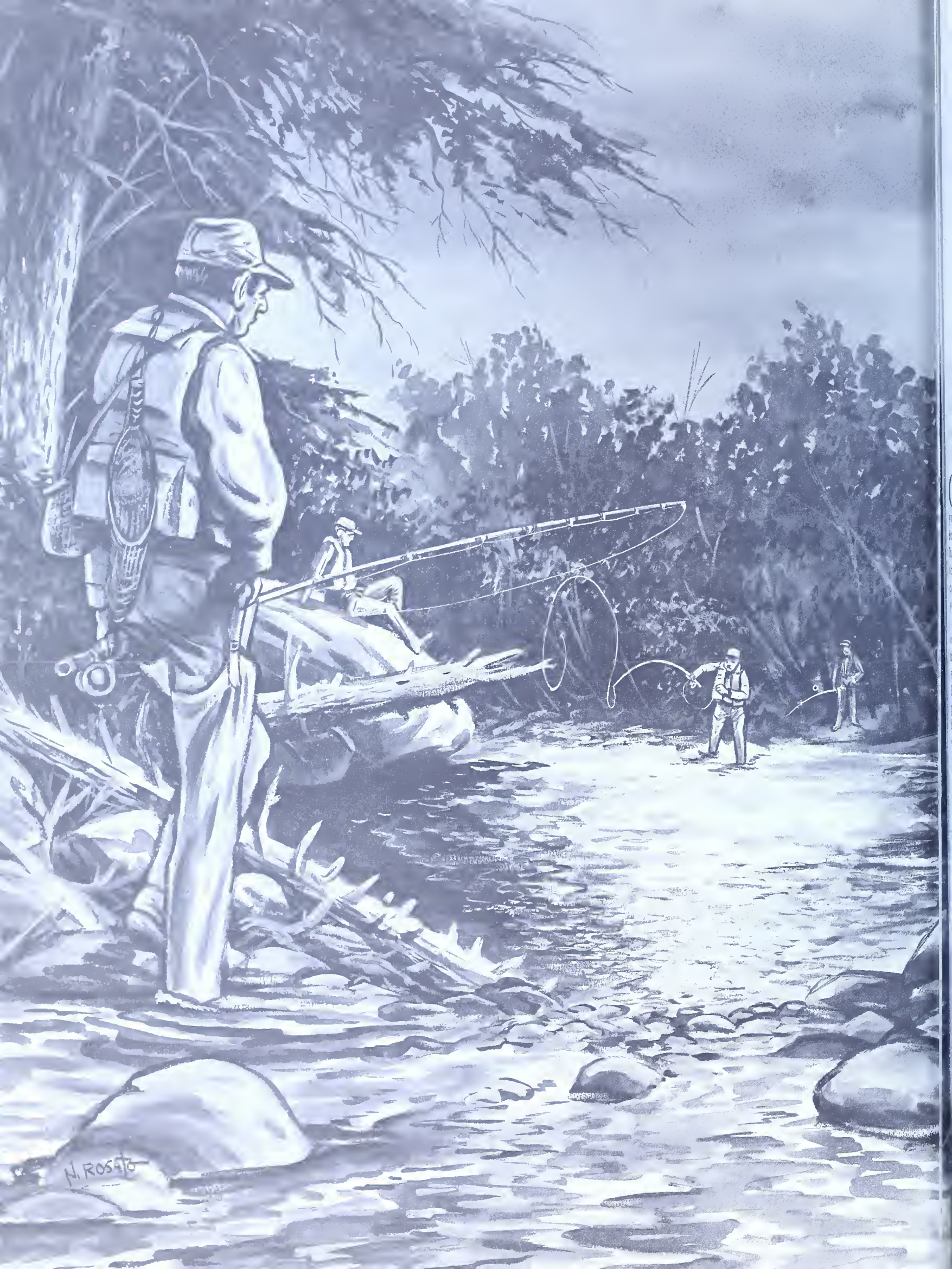
"I think you'd better leave it there, Chris. You don't have any place to keep it at home. By the way, it's pretty cold and muddy out here. We'd better start back to school now."

"I don't want to leave yet," complained a four-year old.

"You can come back again whenever you want," assured Clifford Cass.

A reluctant group of nursery school children moved back to the cars, casting glances at the raceway behind them.

"I'm coming back to the trout nursery tomorrow . . . and I'll bring my older brother with me, Mr. Cass," came a final comment from one of the children.



N. ROSA

BIG TROUT

by John Crowe

Generally speaking, Ed is trustworthy. If he borrows one of your prized fishing books, you'll get it back without asking for it. Or if he says he'll pick you up at 5 a.m. to go trout fishing, you can count on it. He'll even be good-natured if you're not quite ready.

After you've been trout fishing with a man for twenty-five years, you figure you can trust him. And so last season it was a shock to learn that Ed could be less than absolutely dependable. It wasn't anything definite, but something more subtle. Or, I should say it was *two* things.

First was an upcoming election. Ed wasn't going to vote for the right man, the one I favored. Obviously, two men who spend much time together should agree politically, thus avoiding possible friction.

Second was our contest. Unlike most fishing contests, with tape measures, scales, prizes, and other such crass paraphernalia, it's dignified and simple: each of us tries to catch a trout bigger than the other fellow's.

After a day's fishing, if Ed tells me that he has in his creel four trout from 10 to 12 inches, I know he does. Or if I tell him I have two, an 11- and a 13-incher, he knows it is the truth. And, when we do not keep any, as is usually the case, whoever says he caught the largest trout of the day is the unquestioned winner. The competition is so genial I hesitate to use the word contest.

Each of us has preferences, naturally, not only for streams but for

parts of an individual stream. But he never pushes them; not in twenty-five years has there been insistence. If ever there is less than amiable agreement, we always have a perfect compromise: we go to Spring Creek.

Of many Pennsylvania Spring Creeks, ours is THE Spring Creek. It is formed by three mountain brooks, each with flashing, colorful native trout, most of them less than six inches long. An eight-incher is unusual.

In the main stream the trout grow larger, although Spring Creek is not noted for big ones. As far as I know, record for the stream is a brown caught by a local fly-tier and taxidermist. Mounted, it adorns a wall in his shop, over a showy sign: "Record Spring Creek Trout: 18 inches, 2½ lbs. Caught June 14, 1963 by J. H. Hamm, Proprietor."

But Spring Creek is noted for its wild trout, shy and fastidious. Part of the stream is restricted to fly fishing, with daily hours from 5 a.m. to 9 p.m. These considerations have made it a favorite with us.

After the first few trips of a new season we begin to know individual trout of respectable size. One of 12 or 13 inches is respectable; a 14- or 15-incher is a prize; any over that is a rarity. As I said, the stream record is perhaps a 2½-pound 18-incher.

The only real flaw in Spring Creek fishing is Hammy, the fly-tier and taxidermist I mentioned. Hammy is a pest, a thorn in the flesh. He's boastful, and, to make him even more

obnoxious, he's an expert fisherman. And, he haunts the fly section, *our* favorite part of the stream.

Consequently, he meets Ed or me quite often. Or maybe he'll come along the road as we're getting ready to go home.

"Hello there! You guys here again? When do you work? Must be nice to have a wife support you so you can fish all the time."

This humor is followed by loud laughter. I can see Ed color. Sometime Hammy's going to cause Ed to have a coronary. But Hammy isn't finished.

"Howd'ja do? Catch anything worth keepin'? You know, much as you guys fish here, you'd think you'd catch a big trout sometime. Tell you what I'll do: you catch a Spring Creek trout bigger 'n that one in my shop, I'll mount it for you for half price, that's what I'll do!"

By this time Ed is purple. However, Hammy's next move is his most irritating. He comes over to the car, looking for our creels, picking up one, then the other. If it happens we haven't kept any trout, he roars with laughter, although if he took a careful look at Ed he would know that he was flirting dangerously with eternity.

"What the heck! No trout! Must be you wasn't usin' the right fly. Stop at the shop some day for some flies that work."

If a creel holds moss or fern, he lifts it out to investigate, looking at the trout contemptuously.

"Huh! is that the best you could do! Not a real good one in the lot."

Once last season, after Hammy had looked at our catch, the best a 13-incher, he stepped over to his station wagon for his creel. Ostentatiously he laid out what was indeed a fine fish, a heavy well-colored brown of about 16 inches.

"See? Them's the kind I keep. Pretty close to 18. O' course it ain't as big as the one in my shop."

"What else you got in there?" asked Ed, testily.

Hammy's answer was quick: "Just little ones, like you guys got."

"Let's see them."

"Okay, okay, if you don't believe me." With that Hammy dumped his creel onto the deck in the trunk of Ed's car. Besides the big brown he had five others from 10 to 13 inches.

"I didn't get here till late. Generally I don't keep nothin' under 12."

continued on next page

Big Trout

continued from preceding page

Ed was quiet as we drove home, muttering occasionally about "that pest Hammy."

Once he said, "I'm going to catch a trout bigger than his 18-incher! You see if I don't."

I could sense that Ed was preoccupied. Just before he let me out at my house he said:

"Located any big ones yet?"

"Well, there's that fish at the Cliff Pool, but I don't think it'll go 18 inches. Maybe 17. You know the fish; in fact, you saw it first. That's the best one I know about."

It's always been like that. If Ed learns of a big trout, he'll tell me about it; and I'll do the same for him. A trout that has grown big didn't get that way by being gullible. In a friendly competition you're not giving the other fellow much advantage if you tell him about it.

But the season past, as I said, two things happened. The first was Ed's intention to vote wrong. Being open-minded, I decided that a difference in political opinion should not disrupt a long-standing fishing friendship. The second was not so easy to disregard; it was perhaps a breach of ethics in our fishing contest.

As the season progressed, it was evident that Spring Creek was at its best for years. We should have been content, despite Hammy, but I noticed that Ed kept preferring to go downstream. I wondered why.

In August, near season's end, Ed had to go to Atlantic City for a company convention, and so on the next trip to Spring Creek I was alone. At our accustomed parking place, I found Hammy's old station wagon. I hoped he was upstream because that day I planned to fish the downstream stretch.

I walked down for a half mile or so, thinking to begin at what Ed and I called the Stump Hole, a place where an old stub leaned out over the pool, deep and shadowy. Approaching it, I edged off the stream-side path to detour. Stump Hole had always been difficult to approach. Coming at it from upstream a fisherman had to contend with hemlock branches low over the water; downstream an ironwood tree usurped the space needed for a backcast.

Somewhat back in the woods, easing along quietly, I became aware



that a fisherman was already on the pool: Hammy!

He was up on the left bank, intent on his fishing. About as much out of sight as he could be within casting distance, he was flicking a short line upstream, letting his fly ride well down before picking up to cast again. There was no unnecessary rod waving. Despite my mild aversion to Hammy, I had to admire his technique.

Deciding it would be a shame to disturb him, I kept on downstream. I figured that if I walked down another half mile, the Stump Hole would be rested by the time I fished back to it. Hammy hadn't seen me at all.

It must have been a good two hours later that, fishing up, I came again to Stump Hole. With trout willing and fishing good, I found myself anticipating a try for the trout that had to be there. Wading just below, I was startled by a voice from the shadows on the left bank. Hammy again!

"Hello there! Where's your buddy? He's the one always messin' around this hole. Course there ain't nothin' much in it; maybe a 14, 15-incher. I'm just restin' him for a spell."

Detouring Stump Hole again, I went on upstream, content at least that Hammy wasn't fishing ahead of me but at the same time upset. Hammy's chance information that Ed put in a lot of time at the Stump Hole was disquieting, even more than that Hammy seemed to be spending the day there.

If Ed knew of an extraordinary trout in the pool, why hadn't he told me? Voting wrong was one thing, but withholding vital fishing information was something else. Ed wouldn't

hold out on me . . . or would he? For some reason, the old saying about every man having his price came to mind.

When Ed and I went again to Spring Creek, everything was serene, Ed genial as ever.

"Tell you what I'll do. I'll fish the lower stretch so you can have a crack at the big trout in the Cliff Pool."

"Oh, Ed, don't be so big-hearted. I'll fish the lower stretch. While you were away, I was talking to Hammy, and he told me about a fish down there. I'd like to check it out. He said it'd go 15 inches, maybe."

"Shucks! You know you can't believe anything Hammy says. Where did he say it was?"

"At the Stump Hole. That's where I met him."

Ed should have been an actor, because if he knew anything I didn't, he gave no sign. Instead, with a smile of total innocence he said, "Okay, but no hard feelings if I catch the big one at the Cliff Pool."

That morning I hurried downstream. Ordinarily I would have loitered to admire a cardinal flower or to look for the pileated woodpeckers that traded back and forth at the bend of the creek.

When I neared Stump Hole I made a careful detour, crossing the stream below and coming up the left bank where I had seen Hammy fishing. Rather than wade and contend with that ironwood tree, I thought I'd try his approach.

As I edged into position, I realized I was to have a much better than usual look into the water. The morning sun was shining into the pool; from above I could see clearly the debris on the bottom.

Also I could see the biggest trout

I had ever seen in Spring Creek!

The chocolate brown spots on its back looked as big as dimes; the golden-edged fins and tail moved ever so slightly as it held its place in the mild current. A flash estimate went through my mind: 20 inches at least; possibly 21 or even 22; certainly a record for the stream.

Perhaps subconsciously I prayed as I flicked a deer hair Beetle to the water. But there was nothing subconscious about my heart beat; it was violent. The Beetle floated slowly down over the big fish, but it gave no response. I can remember saying to myself, "If he comes, don't pull too soon."

But my self-coaching was wasted. That trout gave no indication of seeing the Beetle. I could not surmise what I had done wrong.

After an hour of frustration I gave up. When I stood in plain view, the big trout didn't panic; no, it simply faded into the shadowy recesses of the pool.

Fishing for the rest of the day was anticlimactic. I couldn't escape the feeling that if I were as good a fisherman as I thought I was, I would have caught that trout. But I hadn't had so much as a look from it. To have my very best angling effort wholly ignored wasn't flattering.

At the car in the evening, Ed was as genial as ever. His best fish of the day had been a 13-inch brown. As he told me about it, he added, "And I have news for you: that one at the Cliff Pool is bigger than we thought. It might rival Hammy's record." He talked about it at length.

But all I could think of was that magnificent brown at Stump Hole. Once or twice I was on the point of telling Ed about seeing it, then thought better. After all, it might have been an hallucination.

Our next trip to Spring Creek was on Labor Day, end of Pennsylvania's regular season.

Ed was unctuous: "Well, I know you want to fish the upper stretch; so I'll go down. See you at seven—eight—you name it—make it nine if you like. And good luck on that big one at Cliff Pool, he's too smart for me."

But I didn't care about that trout; I wanted to fish for the one at Stump Hole. I could hardly do so without interfering with Ed, at least not early in the day.

Contemplating, I said, "What time do you want to quit?"

Ed was vague, saying again, "You

tell me. Seven? eight? nine? Make it nine, it's our last chance, *this is it!*"

What I planned, of course, was to go downstream to fish the Stump Hole after Ed had finished there. But I didn't want to be obvious about it. Perhaps neither Ed nor Hammy knew positively how big that trout really was.

With some reluctance I set out on the upper stretch. Fishing was good. Ordinarily I would have been happy to catch and release a couple of trout in the 13- to 14-inch class.

At about four o'clock I came to the Cliff Pool. I had in mind to fish there and then walk downstream to Stump Hole. By the time I got to it, Ed would certainly have gone on upstream. My approach to the Cliff Pool was somewhat careless; in spite of Ed's sales talk I did not think the "trout-in-residence" there was anything to beat Hammy's record. Certainly it did not come near the size of the one at the Stump Hole.

Wading into the riffle breaking away from Cliff Pool, I made a tentative cast to lengthen line, dropping the Beetle into shaded water 25 or 30 feet above. There was a swirl. Reflexively I picked up and had a fish on. It was a moment before I realized it was a good trout.

Landing it was routine. 16 inches, maybe, but far short of the prize in Stump Hole. For a moment I thought of killing it but changed my mind. Without a doubt I was quite a fisherman to release such a trout in Spring Creek. So it was with a light heart that I set off on the long walk downstream to the Stump Hole. Somewhere along the way I expected to see Ed, fishing up.

But I didn't. At Stump Hole I

learned why. Ed was still there . . . so was Hammy . . . and so was a man I'd never seen before. It was evident that if you wanted to fish there, you needed a reservation. The stranger was standing at the tail of the pool, in the middle of the stream, the ironwood tree at his back, roll-casting a heavy line and big fly.

Every time that line looped up the pool spray flew. The big trout was no doubt lying underneath all the commotion, laughing—or whatever a trout does when it humiliates a fisherman.

But Ed and Hammy weren't laughing. They were sitting, glum and disconsolate, on the bank below the ironwood. And they didn't seem happy to see me. But I joined them despite the cool welcome, knowing that misery loves company.

"Hello there!" Hammy gloomed. "Join the crowd. Looks like everyone wants to end the season here. Can't imagine why. Not with all them big trout upstream." All this in a loud voice intended, I supposed, for the stranger's ears.

But the stranger gave no sign of hearing. Or moving. Once he stopped casting long enough to change flies.

At seven-thirty he was *still* in place, and at eight. By that time it was obviously a lost cause. At nine the season was to end.

A little after eight, Ed said to me, "Ready to call it a day? And a season?"

"I guess there's no choice. That big trout won't feed again for a week. Not after what it's been through today."

It was dusk there in the evening woods, but I could see Ed's half-smile as he asked, "What big trout?"

"Yeah," Hammy joined in, "what big trout you talkin' about?"





Here's a new approach!

Jelly Bean Bass

by William R. Schaffstall

Bass, they say, will sometimes strike at anything. They'll do it because of hunger, fear, annoyance or just plain cussedness.

If that latter category appears to be unduly critical of Mr. Bass, let the thought die aborning! I'd be the last person in the world to be critical of a bass. I'm his most ardent admirer. Pound for pound, he's just the best game fish there is, that's all.

But he is unpredictable—and therein lies his charm.

The bass has been known to hit everything from crumpled cigarette packages and cigar butts to clothes pins and carrots. Ask anyone who has fished for bass for any length of time and he'll tell you about the time he caught a bass on a beer can ring, or a rubber band, or a piece of plastic or a "*what-chamacallit*." The phrase "everything but the kitchen sink" comes to mind but I've seen kitchen sinks, and worse, in rivers and lakes. (litter bugs, please note!), and I'm sure that somewhere, somehow, they have ensnared a bass one way or another.

So I don't feel that an apology is in order for catching them on jelly beans. That's right, *jelly beans!*

So what, you say. This guy talks about bass hitting a variety of things and then mentions jelly beans as one of them. Big deal!

But, I'm not talking about an accidental, isolated, once-in-a-lifetime happening. I'm saying get yourself a bag of jelly beans and make them a regular part of your tackle box. What's more, don't use them as a last resort when nothing else is productive but consider them as your very first choice of lures on a given day. The one thing I'm sure of is that jelly beans will catch bass.

Think about it for a moment and the logic of the thing becomes apparent. All you have to do is realize a few things about largemouth bass (*Micropterus Salmoides*), the smallmouth bass (*Micropterus Dolomieu*), and the jelly bean (*Birdicus Eggus Ludensus Easteritis*).

The bass, of course, will feed on practically all forms of aquatic life, worms, insect life, and those lures which resemble these species. Also, as previously mentioned, on anything that moves.

Jelly beans, on the other hand, are made to resemble bird eggs and they come in a wide variety

of bright colors. A multicolored cluster is easily impaled on a #1 hook and you can experiment with the color combinations of your choice. I've never found one particular combination to be more productive than another for river fishing. Maybe the various flora and fauna of a lake bottom would lead to a preference for a certain color grouping, but I just don't know—as yet.

Maybe the colors attract the bass; maybe it's the shape. Maybe as the hard coating of the jelly beans dissolve (it's mostly sugar, flavoring, and coloring) the change in the surrounding water is alluring to them. I don't profess to know. I consider that a matter for Fish Commission biologists to ponder. The only thing I'm interested in is the fact that bass will frequently take a whack at it—and you'll frequently take a bass.

There are fringe benefits also. First there is the adaptability of the jelly bean itself. I like to fish them without the coating. This removes the coloring and the hardness to the touch, and leaves a semi-firm, gelatinous blob of opaque gray-white matter which is somewhat like a large fish egg and, to me at least, seems to be more like the kind of thing which would be indigenous to the natural habitat of a bass, at least a river bass.

They may not be as flashy that way but it seems to me they appear to be more natural. However, let's not quibble about that. It doesn't really matter very much if you fish them one way or another. The thing is, fish them, and somewhere along the line a bass will make you glad you did.

Be a little philosophical about it and you may add a whole new dimension to your fishing. Picture yourself, for example, sitting in your boat reveling in the wonders of your natural surroundings,



reflecting on the caprices of the bass, and generally at peace with the world. With jelly beans you can reach into your lure box, grab a few of the goodies and satisfy your sweet tooth. Don't chew them, just suck the outer coating off and as you enjoy the sweet, spicy flavors, you can also savor the knowledge that, in a minute or two, your pliable, natural looking, egg-like bait will be ready for your next cast. Even if the bass don't eat them, you can, and if you've ever had the misfortune to pop a hellgrammite into your mouth you'll come to appreciate what a novel approach jelly beans can be.

Now, if you're thinking ahead, don't be concerned about the fact that the availability of jelly beans tends to be somewhat seasonal as they are associated with Easter. If you can't get jelly beans, get the small gum drops that abound at candy counters everywhere. They're basically the same thing. Use them with the sugar coating or not and if the bass knows the difference, chances are he won't care anyway.

There is reason to believe that there might be (just might, mind you) some advantage to the gum drops. As stated before, there is no knowledge claimed here of the importance of the colors to the candy lure. If the colors are important, then the gum drops offer the advantage of having the colors run through the whole piece. The jelly beans are colored only on the outer covering. Find out for yourself—and catch bass in the meantime.

Finally, you river fisherman in particular will be glad to know that channel catfish and carp also seem to have a yen for sweets. They are basically scavenger fish anyway and they just might go for an inviting cluster of *Ludensius Easteritis* when they'll turn up whatever they use for noses at anything else.

Think about it and while you're at it—have a jelly bean.

Spruce Creek Browns

&

The Flood of '72*

by James McLaren

The following article appeared in the Autumn issue of "TROUT," the official publication of Trout Unlimited, and is reprinted in the Angler with permission.

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†Department of Biology, The Pennsylvania State University.

On June 21, 1972, the rain began in Central Pennsylvania, but the river basins were already full and could not hold an increased load. On the night of June 22, tropical storm Agnes was pulled southwestward by a large extra-tropical low pressure over Central Pennsylvania and here the storm sat, causing its worst destruction.

Among the casualties was the Trout-Unlimited-sponsored research on the brown trout of Spruce Creek, Huntingdon County, Pennsylvania. This research was being conducted on a 1/3-mile stretch of stream on land owned by The Pennsylvania State University. All was not lost, however, for here was the rare opportunity to

study the effects of severe flooding on a wild population of trout. Spruce Creek flows into the Little Juniata River, and on the worst day of flooding, June 23, a U.S. Geological Survey gaging station located on the Little Juniata River near the mouth of Spruce Creek recorded a discharge 60 times the average annual discharge.

Destruction in this valley was extensive. Roads and bridges were washed out, trees uprooted, and homes flooded. At times many areas were totally isolated by flood waters. On a smaller scale, the stream bed of Spruce Creek was grossly altered and severe scouring of the stream bottom occurred. The question remained whether the trout population suffered comparable damage.

Experimentation had already begun on Spruce Creek, lending itself easily to answering this question. In May the trout had been collected by electro-fishing and marked with identifying numbers. The marked

trout ranged in size from 135 mm (5.3 inches) to 420 mm (16.4 inches). The marking was accomplished by a relatively new method called cold-branding, accomplished by holding them against silver branding tips (6 millimeters square) chilled by liquid nitrogen and bearing a number. This method of marking should cause little damage to the fish when done properly, and the numbers can be read for at least one year.

The marked population had been confined in three adjacent sections, each 700 feet in length, by weirs resembling picket fences. These weirs remained in place for about two weeks before the rains associated with tropical storm Agnes destroyed them.

Six weeks after the flood the trout were collected from each of the three test sections, and each identifying number was recorded. These data revealed some startling facts about the ability of trout to survive and maintain their position in spite of raging

flood waters.

The total weight of brown trout in the experimental sections had increased and the number of trout had decreased slightly. Under conditions of normal flow one would expect much the same result: an increase in the weight of the population from growth and a decrease in numbers due to mortality of natural causes. But in comparison to previous years' data collected on Spruce Creek, the summer population was larger than expected. A possible explanation for this could be an increase in protective cover which might attract fish from other areas and reduce mortality of the residents.

An unexpectedly high percentage of marked fish remained in their home stretch of stream. Fifty-seven percent of the marked population of May were recovered from the three test sections, and of these 83 percent were found in the same section they had occupied before the flood. The recovery of marked fish was high when compared to data collected in 1969 and 1970, years of average and below average rainfall and flow. In 1969, over a similar time period, 48 percent of the marked population were recovered and in 1970 only 40 percent were recovered. Statistical treatment of the population estimates shows high reliability and reflects either a greater permanence or greater survival of the 1972 population.

The yearling trout, averaging 168 mm (6.6 inches) in length, weathered the storm as well as the larger trout (see Table 1). Age and size had no significant effect on the recovery of the marked trout. Many of the yearling trout were recovered in sections adjacent to their original section, but this slight displacement might be explained by factors other than the flood. The newly emerged fry were not abundant enough in the May and August samplings to permit an estimate of the effect of the flood on their numbers but electrofishing in 1973 should reveal this information.

Although the uppermost stream section received the greatest scouring and channel alteration, marked trout were recovered in approximately the same proportion (51%) as in the lower two sections (64% and 50%). The recovery of yearling trout in the upper section was only slightly lower (46%).

The effects of the intense scouring of the substrate on food organisms were not studied, but based on other

studies, one might assume that the population of food organisms was greatly reduced. The trout present in the test sections six weeks after the flood were slimmer than normal, as shown by a lower condition factor (see Table 2). Condition factor (K) is a measure of the plumpness of a fish, that is, its weight (in grams) in relation to its length (in millimeters). For example, a fish with a condition factor greater than 1.0 is usually better fed and has a faster growth rate than a fish with a condition factor less than 1.0. The mean condition factor of 124 yearling trout in August, 1972, was near unity, but significantly lower than yearling trout in 1969 and 1971 (Table 2). It was not significantly different from the condition of yearlings in 1970. The poorer condition of trout in 1972 may have been the result of a flood-induced decrease in food supply.

The poorer condition (lower condition factor) of the yearlings coincided with a slower rate of growth both in length and weight (see Table 3). This observation agrees with the hypothesis of a reduced food supply. The data for the years 1969-1972 also show a tendency for a decrease in growth rate as flow increases.

The ability of hatchery-reared brown trout to withstand flooding was well demonstrated by the recovery of a number of hatchery fish residing in the test sections. Brands on these trout dating from the 1971 season indicated that most of them were carry-overs of at least one year but they were rebranded along with the wild trout at the beginning of the present study. Thirty-one (69%) of 45 were recovered after the flood. The mean length of the hatchery-reared trout was 276 mm (10.9 inches), or about the length of the two-year-old wild trout.

Spruce Creek is bordered by a flood plain affording space for slack water and the trout were most likely saved from destruction by their ability to find refuge in areas of low-water velocity. Hypothetically, after the peak of the flood, the trout followed the flowing water as it receded. By orienting to moderate flow, trout would differ from other fishes (e.g., minnows) preferring slow water. Apparently, all trout, large and small, hatchery and wild, exhibit this behavior.

The adaptation and survival of trout to occasional extreme flooding should influence the management of

their populations. The great demand for increased stocking of trout to offset the supposed losses created by flooding should be examined carefully and individually. The trout over thousands of years has become adapted to his watery environment, however unmerciful it may be. Man who has come more recently to live within the flood plain does less well.

TABLE 1.

The recovery of branded wild brown trout of Spruce Creek, Huntingdon County, Pennsylvania, following the flooding from Tropical Storm Agnes, June 22-27, 1972. Trout recovered in sections which they occupied prior to the flood and in adjacent sections were combined to compute the total percentage of recovery.

Age	No. Recovered Marks			Total %
	Marked	Original Section	Other Section	
I	137	62	19	59
II	55	26	4	54
III	28	12	1	46
IV	26	16	0	61
V	6	4	1	83
VI	1	1	0	100
	253	121	25	57

TABLE 2.

The mean condition factor (K) of yearling brown trout of Spruce Creek, Huntingdon County, Pennsylvania. The condition factor was computed from the total length (L) in millimeters and weight (W) in grams of each fish, by the formula:

$$K = W \times 10^5 / L^3.$$

Date	N	Mean K
July 1969	155	1.0815
August 1970	98	0.9957
August 1971	70	1.0386
August 1972	124	1.0016

TABLE 3.

The specific growth rate of yearling brown trout of Spruce Creek, Huntingdon County, Pennsylvania.

Specific growth rate =

$$(\log_e W_t - \log_e W_i / T) \times 100.$$

W_i (or L_i) is the mean weight (or length) of the trout on the initial date. W_t (or L_t) is the mean weight (or length) on the final date. T is the time interval in days.

Year	Time Interval	Specific Growth Rate	
		L.	W.
1969	7 Apr.- 7 July	0.2766	1.0439
1970	25 May-14 Aug.	0.2344	0.5514
1972	26 May-15 Aug.	0.2081	0.5286



Sucker Fishing Time

Photos by HOYT P. GLOVER, JR.

That time is here again! March and suckers always go together—the water is usually a little high and muddy—and although it can get pretty cold in March, it's not too bad if the fish bite!

Harrisburg photographer Hoyt P. Glover, Jr. recorded the activities of sucker fisherman James B. Moore, fishing at the mouth of Fishing Creek, in the shadow of Fort Hunter last spring. All you need is a bucket of worms and a barrel of patience!



Left: James B. Moore, of Harrisburg, getting a little of the action at the mouth of Fishing Creek, just north of the city. Above: When you hit a school of suckers, it's hard to handle two rods! Sometimes they slack off (below) and there'll be time for story telling. Those unidentified anglers (below, left) ended the day with a mixed catch.





Don't just sit there—

Short on fuel? That's no reason to be short on fun! Why not try fishing in your own backyard?

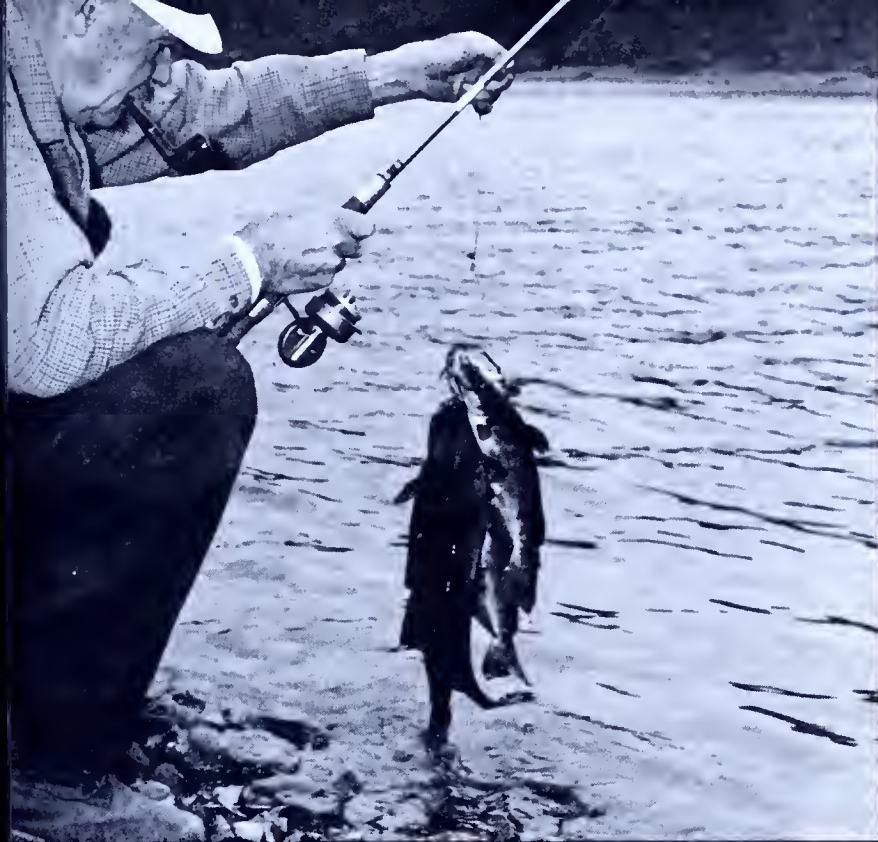
Chances are there's some mighty good fishing no more than a gallon of gas away.

If you doubt that, check with your Waterways Patrolman—he can pinpoint a hot spot that's close to your home.

His name, address, and telephone number are listed in your summary of fishing laws.

You might wind up wondering why you never thought of it before!





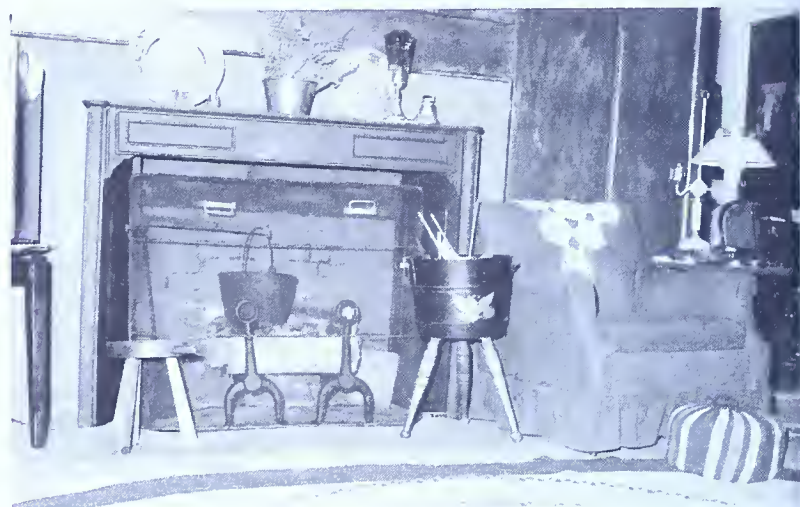
Go Fishing !



fishing with "Uncle Sam"

by J. Almus Russell

In this kitchen, Mrs. Lucy Frances Wilson, mother of "Uncle Sam," prepared many of the delicious fish recipes offered in this article.



Alewife Brook, the Charles River, and Boston Harbor; Withee Brook, Pratt Pond, and the Souhegan River; Waloomsac Watershed, Lake George, and the Hudson River—all

of these bodies of water were the fishing grounds of "Uncle Sam" Wilson who gave his nickname to the United States during the War of 1812.¹

Born in Menotomy (now Arlington), Massachusetts, on September 13, 1766, Samuel Wilson was reared near the Atlantic Coast and its tributary tidal rivers.

In father Edward Wilson's family of thirteen children, food was ever a scarce item. Many of the meals followed the Scotch tradition of salt codfish, smoked herring, soused mackerel, and fresh-caught saltwater fish.

When Samuel Wilson was fourteen, his father Edward moved the family to Mason, New Hampshire. Here the lad enjoyed brook, pond, and river fishing:

*"Churning the cream in the kitchen,
For duties he shared with the rest,
Fishing for trout in the spring-time,
In the brook to the east—to the west."*

Came the year 1789, Samuel, undoubtedly lured by tales told by passing travellers, left the home of his adoption, walking over the rugged ridges and through the deep ravines of the Green Mountains of Vermont to the thriving town of Troy, New York. Here in the Hudson River country, he was to make his lifelong home, engaging in numerous trades including that of meatpacking.

As a meatpacker and broker, Samuel Wilson was to give his name forever to our nation. As a kindly and benevolent employer of local labor, he was to become known to everyone as "Uncle Sam."

During the War of 1812, he supplied pork and beef to the American Army in white oak barrels marked "U.S." (United States). With many of the soldiers having an appetite for fish, he brined and packed numerous barrels of shad and sturgeon. In the spring, shad was so abundant in the Hudson River that it was called colloquially, "Albany Beef." And the same might have been true of the shoals of sturgeon which ran up the river to spawn.

¹The author of this article speaks with authority on the subject of "Uncle Sam" Wilson. His third great grandfather, Jason Russell, was a resident of Menotomy (now Arlington), Massachusetts at the time of the American Revolution and a neighbor of the Wilson Family. After Jason was slain by the British Troops on April 19, 1775, his son, Jason, Jr., moved to Mason, New Hampshire, to which town the Wilsons migrated in 1780. Again the Wilsons and the Russells were neighbors. Russells descended from the same family line now live in Troy, New York, the city where "Uncle Sam" spent the years of his mature life from 1789 until his death in 1854.

In addition, Connecticut peddlers brought small kegs of fresh oysters from the Norwalk oyster beds which were stuffed into saddlebags and carried to the interior of New England and New York. "Uncle Sam" was also a dealer in their product.

One day a bystander casually asked—"What does that barrelmark, 'U.S.' stand for?"

A local meat packer replied: "Oh, that stands for 'Uncle Sam.' We always put his name on."

The nickname caught hold at once, and as a result, all of the meat and fish shipped from Troy to the troops was referred to as "Uncle Sam's beef," with the soldiers recognizing the brand "U.S." as the initial designation of "Uncle Sam."

Such a sobriquet spread rapidly. As early as 1813, American newspapers used the term to refer to the United States. Soon thereafter, the cartooned figure of Uncle Sam became standardized as a tall spare man with top hat, frock coat, and striped trousers symbolizing the United States.

Massachusetts, New Hampshire, Vermont, and New York Cookbooks of "Uncle Sam's" day have yielded this treasury of early fish recipes undoubtedly familiar to and used by the Wilson family.

As the vacationer follows the *Uncle Sam Trail* from Arlington, Massachusetts, to Mason, New Hampshire; thence northwestward across Southern New Hampshire and Vermont to Troy, New York, excellent restaurants, hotels, and private homes serve the same delicious fish cooked from recipes traditional in Samuel Wilson's day.

(Editor's note: Although some of the fish specifically called for in the following recipes, are not native to Pennsylvania, many of our more common gamefish can be substituted satisfactorily.)

FISH RECIPES FROM "UNCLE SAM'S" KITCHENS

DEVILLED CLAMS

8 clams with broth
1 medium onion
4 hard-boiled eggs
1 beaten egg
1 loaf white bread, medium size
1 tablespoon butter, browned
salt, pepper, parsley
frying fat
Grind clams, onions, and eggs through food-chopper. Break bread into fine crumbs. Combine all ingredients, mixing them well. Chill

for several hours. Shape into patties, dip in beaten egg and buttered crumbs. Fry.

CODFISH CAKES

2 medium-sized potatoes
1½ cups packaged, shredded codfish
5 tablespoons fat
¾ cup milk
2 eggs

Boil and mash potatoes. Combine the unseasoned mashed potatoes with the codfish, milk, and beaten eggs. Form mixture into 18 cakes. Sauté in the fat until a golden brown. Canned codfish cakes may be used and cooked in the same way.

FISH KETCHUP

(Century-Old Boston Recipe)

Take rather more than a pint of vinegar, three pints of red Port wine, two tablespoons of black pepper, plenty of shallots and horseradish, the peel of half a lemon, two or three bay leaves, and a pound of anchovies; let the whole boil together until the anchovies are dissolved, then strain; and when cold, put it into bottles. Two or three spoonfuls are sufficient to flavor a pound of butter.

SCALLOPED OYSTERS

Temp.—400° Time—15 minutes
Toast several slices of bread and butter them on both sides. Arrange the toast around the sides of a baking dish instead of using a crust. Fill a baking dish full of oysters. Season with butter, pepper, salt, and mace. Cover the top with fine breadcrumbs and bake as directed.

FRIED EELS

2 pounds eels, dressed
½ teaspoon salt
¼ pound salt pork
⅛ teaspoon pepper
½ cup cornmeal

Cut eels in 2-inch pieces, and parboil eight minutes. Sprinkle with salt and pepper, dip in cornmeal, and sauté in the pork fat.

STEAMED TROUT

with Horseradish Sauce

Temp.—212° Time—30 minutes
3 pounds trout, dressed
1 teaspoon salt
½ cup melted butter
3 tablespoons parsley, chopped
Tie trout in cheesecloth and steam over boiling water for half an hour. Lift fish out carefully, cover with

the melted butter and parsley, and serve immediately with

HORSERADISH SAUCE

¾ cup horseradish, freshly grated
2 tablespoons vinegar
½ cup heavy cream, whipped
¼ teaspoon salt

Combine all of the ingredients except the whipped cream, and chill. Just before serving, whip the cream and fold into the horseradish mixture.

SALT MACKEREL

Temp.—450° Time—10 minutes
Wash the fish; soak it over night skin side up. In the morning, drain and dry. Place fish in a broiler and broil, flesh side down, until a golden brown. Turn. Broil the skin side quickly. Lay fish on a heated platter, moisten with butter that has been rubbed with an equal quantity of lemon juice, and serve.

SMOKY CATFISH CHOWDER

¾ pound fat salt pork, diced
2 large onions, sliced
4 medium potatoes, sliced
salt and pepper
1½ pounds catfish, sliced
4 cups milk
water

Brown the pork in an iron kettle. Add sliced onions and fry until transparent. Add sliced potatoes with water to cover. Season to taste. When potatoes are nearly done, add the milk and fish. Simmer for 10 minutes. Serve hot in chowder bowls.

MASON PICKED FISH DINNER

2 pounds salt cod, picked
8 medium-sized potatoes
6 medium-sized beets
2 cups milk
½ pound fat salt pork
4 tablespoons flour
12 onions
salt & pepper to taste

Freshen the fish by soaking it in cold water over night. Pour the water off and simmer it in fresh water until tender. (Do not let the water reach the boiling point as this will toughen the fish.)

Pick the fish into medium-sized flakes by using two sharp-tined steel forks. Meanwhile boil the beets and the potatoes. Slice the salt pork into thin strips and cut into fine pieces. Fry it out slowly, drain, and place four tablespoons of the fat in the frying-pan. Rub the flour into the hot fat, add the milk slowly, and stir so that

continued on page 28



“Ol’ Rubber Lips”

Taking A Closer Look

BY TOM FEGELY

Although the beginning of March may still offer some good ice fishing in Pennsylvania’s northern counties, it is also the time when anglers begin to stir at the periodic promises of warmth. With trout season better than a month away, the lowly sucker suddenly becomes king of the stream.

No less than 65 species of suckers inhabit fresh waters throughout the United States. At least 18 of these can be found in lakes, rivers and streams across Pennsylvania. Many of them are very localized in habitat. This, combined with their small populations and inconspicuous nature, renders them unknown and unseen to all except an occasional worm fisherman or minnow seiner. Such is not the case, though, with *Catostomus commersoni*—the WHITE SUCKER.

Best identified by its down-turned, tube-like mouth, the *white* or *common* sucker is well suited to its stream floor existence. Like a miniature vacuum cleaner, it siphons worms, aquatic insects, small mollusks and vegetable matter from the small stones and gravel over which it searches. Occasionally accused of being a predator on trout eggs, there is little evidence that they are a major item in the sucker’s diet.

On the other hand, suckers themselves are a major food for some of the larger gamefish. Muskellunge and northern pike fishermen prize small suckers as bait since they are a natural prey for these predatory giants of the fish world. As fry, suckers are

fed upon by various aquatic predators including trout. Spawning suckers are frequently followed by other fish that eat their eggs immediately after they are laid.

When food is plentiful the white sucker grows rapidly and may attain lengths of two feet and three or more pounds in weight. The existing Keystone State record is a fantastic 28 inch, 9 lb., 12 oz. trophy taken in Crawford County’s French Creek by George Kemper of Butler (1938).

MIGRATE UPSTREAM IN SPRING

The sucker is a spring spawner, often moving up feeder streams in great numbers after early rains have warmed the flowing waters. Preferring the gravelly bottoms of shallow streams to the deeper pools, suckers frequently do their moving at night. Even lake suckers migrate up the tributaries, although they are also known to spawn along the shoreline.

Two males typically mate with the female at the same time. Each presses against the female’s side and, as she deposits her eggs, shed their milt simultaneously. Since neither sex constructs a nest of any kind, the eggs and milt are broadcast at random over the stream floor. As many as 100,000 eggs may be laid by a twenty-inch female. Although many eggs never get fertilized, and some become food for other fish, thousands of newly hatched fry can be found swarming in the shallows for several weeks after

hatching. Trout, catfish, large panfish and others take a heavy toll on these unprotected youngsters. The parent fish desert the eggs immediately after mating.

Suckers are gregarious and tend to move about in large schools. The spring shore fisherman who is blessed with patience is rewarded when a school of these bottom-feeders come upon his lines. Suckers feed somewhat like carp in that they move about slowly and deliberately, vacuuming the floor for plants and soft-bodied animals.

EASY TO LEARN SPORT

The two most important things to learn about sucker fishing are where to fish and how to rig the line. The first is relatively easy. When the water is clear they can be seen swimming, feeding, or lying quietly on the bottom. Boaters often spook suckers by the hundreds as they cruise over their river hide-aways. In spring, congregations of sucker fishermen line the banks of rivers and large streams, whether the water is clear or not. Rains that muddy the flowing waters seem to have little effect on the feeding activities of "Ol' Rubber Lips."

Although every sucker enthusiast has his own favorite rig, I usually use a size 8 or 10 hook covered completely with a "ball" of red, garden worms or even a nitecrawler. A sinker is tied on the end of the line with a leader and hook (or two) a few inches above it. The size of the sinker depends on the strength of the current or the distance you want to cast. The bait must be rigged so that it will lie on the bottom so a feeding sucker can literally "suck up" the small ball of worms. Compared to other fish, the sucker has a relatively small mouth. Keep this in mind when decorating your hook.

Experience will tell you when to set the hook. The most challenging part of sucker fishing is getting to read the "taps" and set the hook only when the fish has taken the bait. Since they have reputations as "nibblers," false strikes are quite common among the novices.

Suckers cannot match the trout or bass when it comes down to fighting ability. A twenty-incher battled on light tackle, however, will remove the cobwebs from any angler's elbows.

FLESH TASTY BUT BONY

Suckers have never gained a reputation as a "table fish." Although the flesh is sweet and tasty—as well as *firm* in early spring—their small bones deter most people from eating them. I've watched many Delaware River sucker fishermen string up a dozen or more of their best catches, only to release them again at quitting time. Some, however, prize the sweet flesh and have methods of pickling, smoking, cooking or frying them so that the bones become soft.

At any other time of the year an angler may curse the sucker for stealing the fat nitecrawler meant for some other fish. But in March, "rubber-lips" stands alone in popularity as "FISH OF THE MONTH"! Take a boy or girl along fishing for him and you'll see why.

Tim Gallagher, of Emmaus, hauls in a white sucker from Indian Creek.





ANGLER'S CHOICE

On October 15th, the Coho, Chinook and Rainbow fishermen off Walnut Creek started to change their ways for fishing for these fish. The way they fished then was with salmon eggs on their hooks fished about four feet below a bobber. Some preferred to fish their eggs on the bottom while their boat was at anchor; some preferred to fish with nightcrawlers from the piers and anchored boats off the mouth of the creek. All three methods were taking the fish—so a critic can't criticize success! Lures were still taking fish but they ran second at that time of year.

Norman E. Ely
Waterways Patrolman
Lake Erie

"WE TRY HARDER"

While assigned to the Pennsylvania Fish Commission's Walnut Creek Access Area for the fall run of the Coho and Chinook Salmon, it was very pleasing and gratifying to hear the remarks and compliments from the non-residents visiting the area. Most of them remarked about the wonderful job the Pennsylvania Fish Commission has done to provide more and better fishing for the angler, and they were all impressed with the assistance they received from the Waterways Patrolmen they came in contact with.

William F. Hartle
Waterways Patrolman
York County

RARE CATCH

Most fishermen would travel many miles to catch a trophy fish. Kenneth Behe of Lilly, Pa., caught two Amur pike recently. No, he didn't catch these fish from the Amur River in Siberia; he was fishing at Glendale Lake in Cambria County. Fishing from shore, and using live chubs for bait, Mr. Behe caught both fish the same day, and lost one the following day. The Amur pike measured 39½ and 34½ inches.

Anthony Murawski
Assistant Supervisor
Southwest Region

AMATEUR VS. PRO

During the annual coho run at Lake Erie, my deputy, Rich Sallade, and his friend, Randy Contray, came up to show me how it's done. At 5:35 a.m., Rich walked into the station at Walnut Creek and displayed his first catch: a huge ball of monofilament line which included a #3, a #2, and a #0; Mepps Spinner; also, a black rooster tail, two wire leaders and two swivels. I admired the catch and joked, "Is that the best you can do?" To this Rich offered, "The day is still young!" Indeed it was for these two energetic anglers from Beaver County. Using salmon eggs, Rich and Randy fished off the wall at Walnut Creek and caught 19 rainbow trout and one coho salmon. Randy outfished the pro, Sallade, with 12 rainbows and one coho, to 7 rainbows. Rich is still licking his wounds! Of the total catch, Mr. Contray took home two trout and a coho, while Rich settled for two rainbow. Among the fish Randy released was a 24 inch, 6 pound rainbow trout. A nice day's work for the amateur Contray, just "so-so" for the pro Sallade!

Don Parrish
Waterways Patrolman
Beaver County

WE DON'T HAVE ALL THE ANSWERS!

As a Waterways Patrolman, I receive many unusual telephone calls from the public, such as: "Is it legal to take nightcrawlers into Canada?" "What is the price of a fishing license in New Hampshire?" "Will I make any money if I go into the fish hatchery business raising bass?" "Are you the man who removes fallen trees from the water?" But one that really threw me was a call from a man who lives near one of the Fish Commission properties, who inquired, "There's a pig on my front lawn, do you know who it belongs to?"

R. A. Bednarchik
Waterways Patrolman
Chester County

TIME WILL TELL—

I finally confirmed a walleye catch from the First Fork of the Sinnemahoning Creek. I went to the home of Richard Conerby of Austin, Pa., and, sure enough, I measured a 20½" walleye and took scale samples from it. What makes this so unusual is that none have been stocked for a number of years in the G. B. Stevenson Dam. The last being about 5 years ago and only one was caught from this planting. The dam was recently drawn down and the fish are in the First Fork below the dam. I wonder how many more are in these waters?

Stanley G. Hastings
Waterways Patrolman
Cameron County

NO PLACE LIKE HOME—

While on vacation the first two weeks of October, I traveled through seven states after leaving Pennsylvania. After seeing many streams and rivers in the course of travel, I was really glad that I live in Pennsylvania. We may not have lakes quite as large nor as many as some others but the trout streams and warm water river fishing, I did not see anything that I liked better than right at home.

Raymond Hoover
Waterways Patrolman
Tioga County

FLY CATCHER?

I recently overheard the following conversation between two gentlemen.

An experienced fisherman was motioning with his arms the movements of fly casting and asking another (a non-fisherman), "Ray, when are you going to go fly fishing with me on the Delaware?" Ray replied, "Heck, you don't go to catch flies, you go there to catch EELS!"

Jay B. Johnston
Waterways Patrolman
Bucks County

THAT'S MY BOY!

While giving a boat a safety inspection, SWP Halulko was checking the equipment and talking to the owner about the danger of riding on the back of the seat or gunwale (side) of the boat. A youngster in the boat told Mike, "My daddy does that all the time! He watches for your boat and when he sees it, he sits down in the seat." You should have seen the look on that man's red face!

Gerald T. Crayton
Waterways Patrolman
Allegheny County

WHY?

Once again, the Fish Commission took part in an Outdoor Workshop with the 6th Grade students of the Cranberry Elementary School District from Venango County. The kids were at Waltonian Park for a week of Outdoor Activities and Education. Jim Ansell, Cloyd Hollen, Gene Spurl, Steve Ulsh, Clarence Shearer and I acted as advisors from the Fish Commission. My part in the program was listed as "Film and Rap Session," and I used the film entitled "THE GIFTS." After watching this film, the kids were amazed, for it showed the way we are misusing our natural resources and polluting the waters of our land. Each time we conduct a workshop of this nature, it is very interesting to listen to the comments from the students concerning water pollution. This film tells it like it really is and it held the youngsters captivated. I have had adult groups who were really offended by viewing it, but the kids watched and listened and then came the questions and comments. One, in particular, really hit me. One of the students asked, "Why do BIG PEOPLE have to ruin everything for us?"

Robert J. Cortez
Waterways Patrolman
Clarion County

REALLY HUNGRY!

While fishing Tamarack Lake with WSC Swanson on 6/14/73, the fish were so hungry, that on two occasions, while using 2 hooks with worms, one fish had both hooks in its mouth. These hooks were 12-14 inches apart on the line. On 3 other occasions, I had a fish on each of the hooks at the same time. *This is good fishing!*

Cloyd W. Hollen
Assistant Supervisor
Northwest Region

EXPENSIVE PARKING!

While on patrol at the Harveys Lake Access Area, trying to curb heavy parking violations, a young offender (who had parked and locked his vehicle on the access lot in a NO PARKING zone) was apprehended before he had a chance to enter a neighboring dance hall and brought back to his car. I tried to explain to him that there would be a charge for his violation. He misunderstood me and thought I was collecting for the parking convenience and said, "Sure

thing, how much do I owe you? 50¢?" When I informed him that it would cost him \$10.00, referring to the fine, he still misunderstood and said, "Good gosh, that is a lot just to park a car! How much do they charge over at the dance hall? I'll go over there!" Much to his dismay, he did go over to the other lot, but after he paid the \$10.00 parking violation!

Claude M. Neifert
Waterways Patrolman
Luzerne County

GOOD WORK!

A recent Supreme Court ruling released federal monies for neighborhood youth work. The Fish Commission was fortunate to receive 12 boys and girls from the Johnsonburg-Wilcox area for work detail. I laid out stream improvement work for the kids to do on the West Branch Clarion River. When they are finished, we will have completed approximately 30 stream improvement devices for this outstanding trout stream. . . .

Bernie Ambrose
Waterways Patrolman
Elk County District

SPECIAL BREED?

October 17, 1973 my contact with trout fishermen at Koon Lake was very pleasant. It was a nice day, and fishermen were taking advantage of it. Eight fishermen accounted for eighteen very nice rainbow trout. Smallest one was 18 inches and largest, 22¼ inches long. Trout from Koon Lake this time of the year are very beautiful. Quite often fishermen think they have caught some *special* kind of trout because of their beauty! I feel that this is a special treat to take trout from the lake during the extended season because *they are beautiful!*

William E. McInay
Waterways Patrolman
Bedford County

"YESTERDAY" HAD ITS POACHERS TOO!

This story was related to me by a friend. There were three men netting shad, *a long time ago*, in the Delaware River and they caught a large walleye in the net. Since it was illegal at that time to take walleyes by this method, it had to be returned to the water. Two of the men didn't trust the third one so they kept saying it sure was a shame they had to throw it back and when the third

man turned his back, one of the other men threw a large rock in the water while the other stuck the walleye up under his raincoat, still saying it sure was a shame to have to throw it back. Just goes to show you that you don't know who to trust anymore!

Joseph E. Bartley
Waterways Patrolman
Lake Wallenpaupack

WILD GOOSE CHASE!

June 15, 1973 I received a call from a woman who stated that her husband and companion were missing in their canoe somewhere between Jamestown and Clark Boro on the Shenango River. I organized a search party and we (Boro Police and State Police) hunted for the missing men. However, the men returned to their headquarters without notifying the Fish Commission or the local police, thus creating confusion and hard work for us.

James Ansell
Waterways Patrolman
Mercer County

GO "ALL THE WAY"!

Recently a group of us "*veteran*" fishermen decided to go coho fishing and we invited one of my Special Waterways Patrolmen, who had never fished for coho before, to go along. He called me in the morning, about an hour before departure, and the ensuing conversation sounded like this. "Paul, should I just wear shoes?" "No, you had better put on a shirt and trousers too!" I must say there was a long pause in our conversation.

Paul R. Sowers
Waterways Patrolman
Warren County

WHOOOPS!

While patrolling the PP&L Lake near Washingtonville, I watched a boat approaching the dock and strolled down to board it. The dock was in use and the operator nosed the boat into the bank. The water was rather shallow and the gentleman turned off the motor and began to row. He turned the boat around and came into the shallows stern first. His wife was seated in the bow and as the boat grounded, she stood up, stepped over the bow into 3 feet of water and exclaimed, "My God! I thought I was in the other end of the boat!" It must have been a rather long and tiring day.

Bill Huffnagle
Special Waterways Patrolman

FLY TYING

"The Picket Pin"

by CHAUNCY K. LIVELY
photos by the author



Consistency is one of the important criteria of a good fly pattern. Every now and then I hear a report from an angler who has had great success with a special fly on a certain occasion. If the performance is duplicated at other times on other streams the pattern becomes a fixture; if not, it is regarded as a flash-in-the-pan, a proverbial one-shot wonder, and is soon forgotten. But when glowing reports come in from many sources concerning the effectiveness of a single fly, year after year, then one must believe that the fly is here to stay. Such is the status of the Picket Pin in the eyes of many northern tier anglers, particularly in early season, and especially in Potter County.

Foremost among the Picket Pin's staunch boosters is Bob Runk, one of Pittsburgh's angling stalwarts, who regularly fishes the beautiful streams of the Kettle Creek country. Bob relates that he first came across the pattern some twenty years ago when he was fishing Laurel Run near Parker Dam. An elderly lady angler was also fishing the stream that day and she showed him an exceptional catch of brook trout, all caught on a cast of two wet flies, of which the Picket Pin was responsible for the lion's share. Attracted by the fly's unusual appearance—and, no doubt influenced by the lady's excellent catch—Bob added the pattern to his wet fly book, where it is now a permanent resident. And always willing to share angling secrets, Mr. Runk recommended the fly to his many fishing friends who now join in his enthusiasm.

It isn't often that a fly is readily adapted to dissimilar types of fishing but the use of the Picket Pin in the trout streams of northern Pennsylvania is far

removed from its employment in the big rivers of the West coast, where it was originated as a steelhead fly. And extending its versatility even further, it is now being used as a favored pattern by Atlantic salmon anglers in the eastern Canadian provinces.

The distinctive appearance of the Picket Pin, with its head of peacock herl, may be altered in accordance with the style of hook used. Bob Runk, like many others, prefers to tie the pattern on hooks of regular length to conform with standard wet fly proportions, in sizes #12, #14 and smaller. Others dress the fly on long-shanked hooks in size #10 and larger, lending more the appearance of a streamer fly. Both styles are worth carrying and a third type, tied on a 1x long hook offers a good compromise.

There is nothing unusual in the tying routine of the Picket Pin but a few words about the peacock herl body and head may be in order. The body should be as full as possible and this may be accomplished by binding the two herls to the hook near their butts, first winding the herls forward the length of the body, then back to the tails and finally forward again, leaving the tips, the part of the herls where the flue is longer, to form a dense head after the hair wing is in place. In larger sizes it is possible that the body-winding procedure will use all the herl, in which event an additional strand may be tied in over the wing butts to form the head.

The adaptability of the Picket Pin to various types of fishing has been so successful that I wouldn't be surprised if it were a first-class bass fly, although I don't know that it has been tried as such. I think I'll tie a few on long-shanked No. 6s to try on Allegheny River smallmouth next season.

To Tie a Picket Pin:

◀ 1. Bind black tying thread to hook shank at bend and tie in brown hackle bar-
bules for tails. Half-hitch.



2. Prepare a brown hackle by holding ▶
tip and stroking along center rib toward
root to set barbules at right angles. A hackle
with webby center is preferred. Then tie in
hackle by its tip, on edge with glossy side
facing eye, over tail windings.



◀ 3. Select two strands of peacock herl
and bind to hook at hackle tie-in. Spiral
thread forward approximately $\frac{2}{3}$ length
of shank and half-hitch.



4. Grasping both strands together, wind ▶
herl forward to form a full body. Tie off herl
as shown, with ends extending downward,
out of the way. Half-hitch.



◀ 5. Affix hackle pliers to root of hackle
and wind forward over body in spaced turns,
open-palmer style. Tie off at fore end of
body and trim away excess hackle stem. Half-
hitch.



6. For wing, tie in a bunch of white- ▶
tipped hair from a gray squirrel tail. Bind
securely with several turns of thread and
half-hitch. Then trim butts of hair on a bevel
and saturate butts with head cement.



7. Wind ends of herls over hair butts, ▶
tie off and trim waste. Then build a neat
head of thread, whip-finish and remove
thread. A drop of head cement on finish
windings completes Picket Pin.



fishing with **"Uncle Sam"**

continued from page 21

the gravy will be smooth. Season to taste and keep hot.

Place the freshened, picked codfish on a hot platter with bits of the crisp salt pork sprinkled over the top. Surround the fish with a border of the diced red beets. Around that place the halved boiled potatoes and onions. Serve the gravy separately.

RED FISH HASH

1 cup boiled potatoes
1 cup boiled beets
1 cup cold cooked fish
½ cup milk
salt and pepper

Chop potatoes, beets, and fish into a fine hash. Moisten with the milk, season, and brown in an iron frying pan which has been well greased. Place on a hot platter and cut into quarters before serving.

LAKE CHAMPLAIN PIKE

2 pound pike, dressed
¼ pound salt pork, cubed
salt
pepper

Fry the pork crisp in a small iron kettle. Dress the pike, removing the backbone. Cut the fish into large slices. Season and place in the kettle. Cook over a medium fire for 20 minutes. Place fish on a hot platter and garnish with water cress.

PLANKED SALMON STEAKS

Temp.—450° Time—15 minutes
Butter a hot plank. Place one-inch thick salmon steaks on the plank and shove under the broiler for 5 minutes. Then bake for ten minutes. Serve hot from the plank.

CARP SMOTHER

2½ pounds carp, dressed
¼ pound of butter
3-4 cups milk
1 teaspoon salt
¼ teaspoon pepper
¼ teaspoon paprika

Cut fish in pieces and place in the kettle with the butter, and seasonings. Simmer until fish falls from the bones. Add a quantity of hot milk according to the thickness of the stew desired. Serve hot, poured over water crackers.

Those who object to the flavor of cooked carp should first soak the scaled, dressed, washed fish in strong

salt water over night; then freshen it by putting it in cold water and bringing to a boil. Following this procedure, the carp may be prepared as specified in standard recipes.

TRAIL FISH STEW

Wash a large canned fruit tin. Flake a can of fish and pour into the tin with its juice. Add one medium-size can of peas with juice. Season with salt and pepper. Hang tin on green, forked stick over a small cooking fire. Simmer for a few minutes. Serve hot with crackers.

FRENCH-CANADIAN TURBOT

3 cups milk
4 ounces butter
4 tablespoons flour
3 pounds turbot, boned
1 cup cracker crumbs
½ teaspoon salt
¼ teaspoon pepper
¼ teaspoon paprika

To make the sauce, cook the milk, butter, and flour together until the mixture is the consistency of cream. Simmer the fish until tender; then alternate layers of fish and sauce in a baking dish. Cover with cracker crumbs, dot with butter, and place in oven to brown.

BAKED BONELESS SHAD

Temp.—400° Time—30 minutes
1 four-pound shad
½ teaspoon salt
vinegar
4 tablespoons butter
¼ teaspoon pepper
¼ teaspoon paprika

Split the shad down the belly without breaking the back. Clean and dress it. Wash thoroughly. Fill the cavity with vinegar and sew up fish carefully. Add the seasonings and dot with butter. Place in a well-greased baking pan and bake as directed. The vinegar will dissolve the troublesome bones in the fish.

PANFRIED PORGIES

6 porgies
1 egg
1 cup breadcrumbs
2 tablespoons fat
salt and pepper

Filet the porgies. Season. Dip in beaten egg; then in breadcrumbs. Fry in hot fat until brown on both sides.

STURGEON STEAK with

LEMON BUTTER

One 1-inch thick slice sturgeon steak
2 tablespoons butter

½ teaspoon salt
¼ teaspoon pepper
½ cup vinegar
1½ tablespoons lemon juice
1 egg, beaten
2 tablespoons cold water
½ cup breadcrumbs
hot water

Soak fish in hot water for five minutes. Drain. Marinate in the vinegar to which the butter, salt, pepper, and lemon juice have been added. Soak for six hours, turning occasionally. Drain, dry; then dip in egg beaten with cold water and crumbs. Brown in hot fat.

LEMON BUTTER

½ cup butter
3 tablespoons lemon juice
Cream the softened butter, adding the lemon juice slowly.

DEEP DISH OYSTER PIE

¼ pound butter
½ cup flour
2 cups milk
1 pint of oysters
salt and pepper
biscuit dough

Melt the butter, add the flour, and blend. Add milk and heat in a double boiler until the cream sauce thickens. Add the oysters and continue to heat in the double boiler, stirring gently until the oysters and cream sauce are near the boiling point. Add the salt and pepper to taste.

Pour into a baking dish that is deep enough so that the contents will not fill it more than two-thirds full. Roll out baking-powder biscuit dough, cut biscuits ½ inch thick, and place on top of the creamed oysters. Bake in a hot oven (450 deg. Fahr.) until the biscuits are done. It is important to have the creamed oysters hot when the biscuits are placed on top, and there should be no delay in placing the dish in the oven.

BROILED HUDSON RIVER SHAD

4 pound shad
½ cup melted butter
¼ teaspoon salt
⅛ teaspoon pepper
parsley
1 tablespoon lemon juice

Clean and split the shad. Place it skin-side down on the broiler. Brush with melted butter and sprinkle with salt and pepper. Broil for 15 to 20 minutes. Remove to a hot platter, decorate with parsley. Cover with the remainder of the butter and lemon juice, creamed together.

BOATING

Questions & Answers

by Capt. Jack Ross

From J. E. S., Hazel Hurst:

"For my 15-foot runabout with 28-hp outboard motor, I would like to get a second, smaller motor, for trolling and as a backup in case of failure of the larger engine. Would you recommend an electric motor or a small gasoline outboard?"

—Since you are already carrying fuel for the large engine, it would make more sense to purchase a small gasoline engine, rather than lugging heavy storage batteries and having the constant problem of recharging. Also, as your boat is rather heavy, I doubt whether an electric trolling motor would perform satisfactorily.



From C. A. J., Glenside:

"Do you think the fuel shortage will have a serious effect on boating this season?"

—It depends on your boat. A fisherman with a small outboard will have little difficulty in scraping up enough gas, even if fuel is rationed, since he uses only a few gallons a day. On the other hand, the owner of a gas-guzzling twin-screw cruiser is likely to be spending a lot more time at the dock.



From W. R. M., Greensburg:

"Is it true that twin engines are an absolute necessity for a boat 30 feet or longer?"

—Absolutely not. Twin screw boats are, as a general rule, somewhat easier to maneuver in close quarters than single-engine boats. The skill of the helmsman is a greater factor, however, than the size of the boat or number of props. Twin screws will not make a good boat handler, any more than a single wheel will create a poor one. Long hours of practice under differing conditions, together with some common sense and good judgement are the ingredients of skillful boat handling, and there are no substitutes.

From S. R., Pittsburgh:

"What can a boat owner do to get the most out of the gasoline he can afford?"

—First of all, make sure your engine is properly tuned. For an outboard, this is mainly a matter of installing new plugs every 50 hours of operation, and keeping the carburetor leaned down as much as possible. Inboard engines should get more attention; points should be checked and maintained at exact settings, carburetors should be kept clean and properly adjusted, and if necessary, valves should be overhauled. As for operation, you will have to make a choice between time and distance. To get the most hours of boating on a tank of fuel, run at idle speed. If the greatest mile-per-gallon performance is desired, then you should run at the boat's best hull speed, which for planing boats is attained by getting the hull up on plane, then throttling back as far as possible while still maintaining a planing attitude. Displacement hulls achieve best fuel economy at about two-thirds of top engine rpm. Whatever your choice, remember that many marinas may not have enough fuel for transients, so plan your cruising carefully to avoid being stalled out on the water.



From F. L., Steelton:

"Are buoyant cushions still legal for a 22-foot inboard boat?"

—Boats 16 feet and over must now carry an approved wearable device (life preserver, jacket or vest type) for each person aboard, and in addition one throwable device such as a cushion or ring buoy. Buoyant cushions are legal as primary lifesaving equipment only on Class A motorboats (under 16 feet) and on non-powered boats.



From R. J., Pittsburgh:

"Can you give a new boater some

advice on docking; somehow or other I always seem to have trouble coming in to a dock, either from wind or current, or just from misjudging my approach. Is there any easy way to do it right?"

—Practice makes perfect, but there is an important step in docking that even many experienced boatmen neglect, often to their sorrow. You should always approach a dock very slowly—absolute minimum idle speed is enough for the last 500 feet or so. When you are about 100 feet off the dock, shift into neutral and let the boat drift ahead, observing the effect of wind and/or current. In this way, you will find out just what is going to happen at the last minute when you cut power. On the basis of this observation, you may decide to turn and approach from a different angle, so as to reach the dock with bow into the wind or current, whichever has the greatest effect. The most important thing to remember is that you can easily make the boat go faster, but slowing it down is much more difficult.



From C. E., Pittsburgh:

"Would a wind-powered generator be practical on a sailboat?"

—Certainly, provided you can sail directly into the wind at a speed of about 25 miles per hour.



From B. R., Pittsburgh:

"How long is a nautical mile?"

—By international agreement, the length has been fixed at 1,852 meters, or approximately 6,076.11549 feet.



From P. M. S., Pittsburgh:

"If you meet a tow of barges head-on at night, what is the proper maneuver?"

—Anything that gets you out of the way, up to and including climbing a tree.

FISH TALES



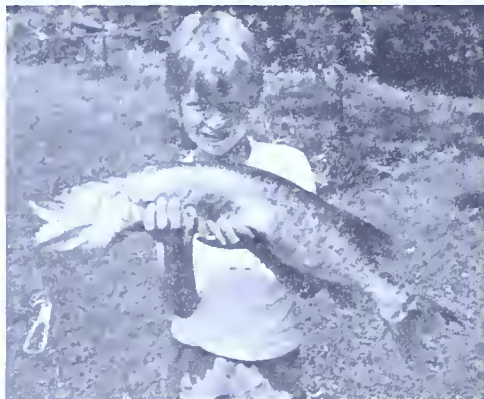
PAUL AUCHTER, SR., of Sharpville, holds his prize—a 42-inch, 16-pound northern pike taken from Shenango Dam, Mercer County, last August. He used spinning gear and a chub.



JAMES SESAK, 8, of Clifton, N.J., holds his 29½-inch, 11½-pound walleye caught in Wayne County's Lake Wallenpaupack in July. It was taken on a flatfish and spinning gear.



An Allentown youth, CHRIS BERTALAN, 12, admires his 19-inch, 2¾-pound brown trout caught in Lake Muhlenburg, Lehigh County, last April. He was using a fly rod and doughball for bait.



Another Allentown youth, LINCOLN BROOKS, 8, holds his nice 32½-inch musky taken from Beltzville Dam, Carbon County, in July. He was using spinning gear and worms and earned a Citation.



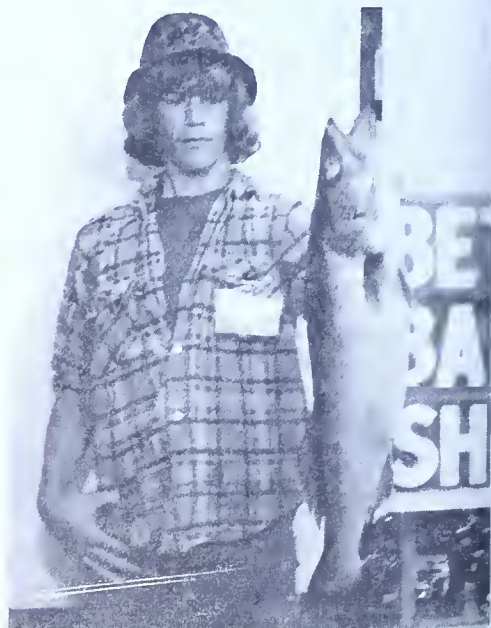
CRIS POTCHAK, 11, of Warminster, also caught a musky last July. It measured 31-inches and weighed 6-pounds and was taken from Belmont Lake, Wayne County. He used spinning gear and worms.



Young RODNEY BARTASHUS, 5, of Reading, shows his 25½-inch, 7½-pound carp caught in Maiden Creek, Berks County, in June. He used spinning gear and earned a Citation for his catch.



GEORGE BAILEY, JR., 12, of Fairview, holds his 26½-inch, 6¼-pound walleye taken from Walnut Creek, Erie County, in September. He was spinning with worms and also earned a Citation.



MATT NELSON, 14, of Andover, Ohio, caught his 30-inch, 9-pound walleye in Pymatuning Lake last June. He was spinning with worms and earned his Angler Citation.



Washington angler, JIM ZANARDELLI, holds a 23-inch, 7-pound largemouth bass which he caught in a Game Lands Pond in Washington County last June. He used spinning gear and a rapala.



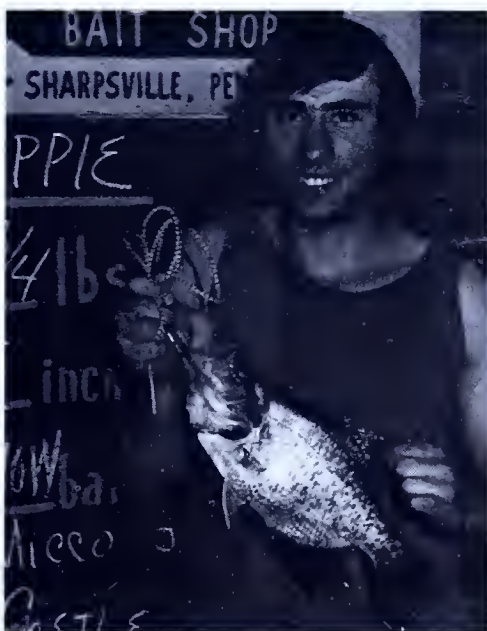
FRANCIS EULNER, 10, of Little Silver, N.J., caught this 15-inch, 1-pound brook trout from Carbon County's Mud Run in May. He used a fly rod and an Evans tuddler.



RALPH FILER, 15, of Altoona, was fishing Canoe Creek, Blair County, last May when he caught this nice 20-inch, 3 $\frac{3}{8}$ -pound brown trout. He was using spinning gear and worms.



Young DOUG ROBERTS, 9, of Montrose, caught this 25 $\frac{1}{2}$ -inch, 7 $\frac{1}{4}$ -pound carp from the Susquehanna River, Susquehanna County, in July. He used corn for bait and spinning gear.



DOM MICCO, JR., of New Castle, holds his 15-inch, 1 $\frac{3}{4}$ -pound crappie caught in Shenango Reservoir, Mercer County, last June. It hit a worm and earned Dom a Senior Citation.



KERR D. SLOYER, 15, of Allentown, holds his nice brown trout caught in the Lehigh River, Northampton County, in August. He was spinning with worms and received a Citation for the catch.



JERRY MAY, of Stroudsburg, proudly holds the 17 $\frac{1}{2}$ -inch, 3 $\frac{1}{4}$ -pound catfish taken from the Delaware River, Monroe County, in September. She used spinning gear and a minnow.



LEWIS MOORE, JR., 7, Elysburg, caught this 23-inch, 4 $\frac{1}{2}$ -pound channel catfish from the Susquehanna River, Northumberland County, in September. He also used spinning gear and a minnow.



Angler, CHARLES MOODY, of Philadelphia, caught his 25-inch, 7-pound largemouth bass from Churchville Reservoir, Bucks County. He was using a minnow and earned a Citation.

KEYSTONE CAMPING

by Thad Bukowski

CAMPING THE "LITTLE SPOTS"

One of the most picturesque back roads I have ever traveled in the Allegheny National Forest is a stretch of about 12 miles of one-car route between two small campgrounds located at Loleta and Kelly Pines. In some stretches you would have to back up for a mile or two if you met another vehicle, but the tour of sylvan woods is well worth the possible problem.

For the traveler who wants solitude in the forest, the two camping spots are ideal and only deer, bear, or wild turkey might cross your path along the road mentioned, Forest Route 131. Shortly after the peak of the trout season, even the streams are deserted.

There is plenty of trout country here as the east and main branches of Spring Creek are near Kelly Pines, and both the east and west branches of Millstone Creek are on either side of Loleta. Maple Creek, upper Salmon Creek, and rapidly improving Clarion River are also in the proximity.

Kelly Pines, in Forest County, is noted for its huge, white pines among which a number of walk-in spots are located. A pavilion is the center of an open glade near the pines and campers set up at random spots in the glade in the rustic, primitive surroundings. Kelly is readily reached off Rt. 66, east from the town of Pigeon along Forest Route 131, also known as Legislative Route 327. Good trout fishing nearby is at Duhring Station along Spring Creek. Kelly can accommodate a few travel trailers, as well as smaller rigs.

Loleta is almost as primitive, but has 31 individual sites backed against the hardwood forest. It includes a swimming area formed by the damming of Millstone Creek, a small recreation grove, and nearby picnicking sites among white pines and hemlocks near the stream. Loleta is located just at the southwest edge of Elk County and is readily

reached from Marienville, south—about six miles along Rt. 21. A good commercial campground is also located just outside of this forest town, along the same route. Between Loleta and Marienville, a sign along this road points the way to Buzzard Swamp. For those who pride themselves as being knowledgeable amateur ornithologists, binoculars may provide interesting sights of bird life of the swamp area. Needless to say, plenty of wild turkeys and deer abound in the vicinity.

A number of trout cooperatives are also located nearby and the interested camper who may also be a trout, has the opportunity to visit these and see fish raised for stocking and breeders that supplement the extensive Pennsylvania Fish Commission trout program. Two of the better known cooperatives in the forest are Marienville and Farnsworth.

This southern edge of the Allegheny National Forest is visited mostly during the early trout season as angling opportunity is topnotch at this time. The best "fly," according to the natives is the *red worm*! The next best, they report, is a juicy nightcrawler.

Tenters set up camp in open glade at Kelly Pines. Picnic pavilion is seen in center.



Huge white pines and hemlocks shade rustic campsites at Kelly Pines, a dozen miles or so from Loleta campgrounds in the southern section of the Allegheny National Forest.





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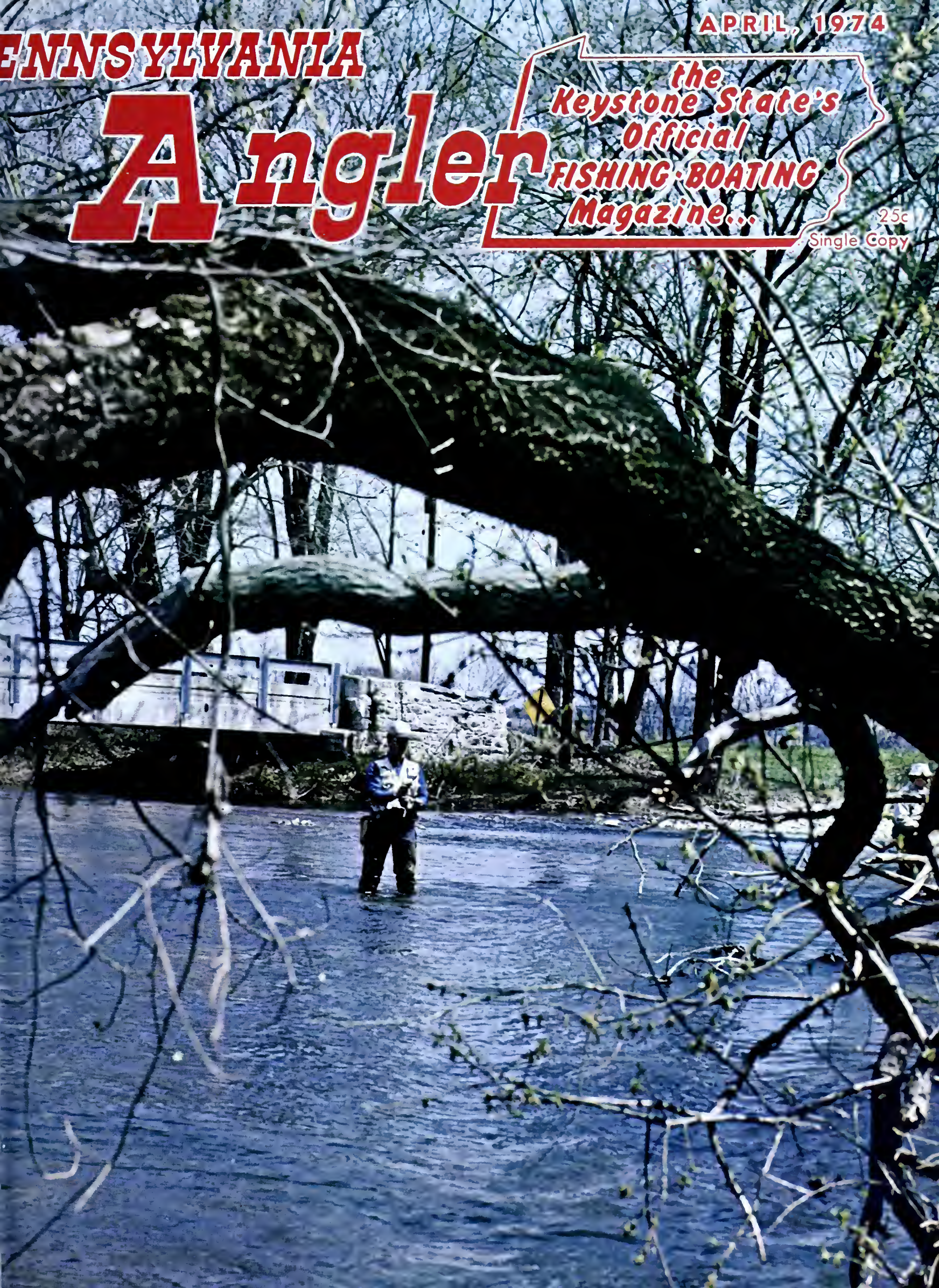
PENNSYLVANIA

Angler

APRIL, 1974

the
Keystone State's
Official
FISHING · BOATING
Magazine...

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"It's later than it's ever been!"



On February 2, 1974, the officers and directors of the Pennsylvania Federation of Sportsmen's Clubs signaled an historic accomplishment. At that meeting they voted unanimously to set up an office and hire a full-time Executive Director. Salutes are due those intrepids of the Federation who worked long and hard to present a viable report and recommendations that were well put together.

Lenny Green, Oscar Becker, Roy Wagner, and Jim Price were joined by others who gave generously of their time and expertise: Lou Clapper and Pete Farrar, of the National Wildlife Federation, Matt Douglas, Pete Duncan, Frank Masland, and Tom Webster all blended experience and advice in presenting proposals that President Metzger could push without any qualms about their being in the best interests of not only the sportsmen, but the Commonwealth as a whole.

There have been some strong insinuations recently that the Federation has surrendered its leadership role to "newcomers" on the environmental scene, resulting in a "slipping" in effectiveness, that are unfounded. Actually, the change in the environmental movement has not gone unnoticed by enlightened members of the General Assembly. Some need to be reminded that an adverse environmental stand will bring down the wrath of the PFSC whose political clout is capable of running out of office those who dare to refer to the organized sportsmen as "a couple of clowns with fishing poles"!

Noting the complicated maneuverings in recent months which have resulted in the erosion of those wonderful landmarks of environmental legislation shoved through by sportsmen in past years, it was evident that the Federation had to "run up the flag" and become *THE GUARDIAN FORCE* responsible for the protection of the necessary legislation now on the books and to fight off all the compromises introduced for short-term gains . . . and it was none too soon!

Early in March, the House Conservation Committee listened to a parade of special interest witnesses backing the enactment of House Bills 1425, 1426, and 1427, which would emasculate the Clean Air Act of 1970, the Clean Streams Amendments of 1970, and eliminate the purview of the Environmental Quality Board in favor of the Commonwealth Court. Witnesses from the petroleum industries asked for relaxation of certain provisions of existing law which "could cause extreme economic hardships"! The coal lobbyist claimed that present laws impose illogical and unnecessary impediments to mining operations and are a cause of the "energy crisis." The Pennsylvania Chamber of Commerce talked out of both sides of its mouth, claiming that these bills can preserve our environment while promoting the economy of our state! The paper industry, which requires clean water and clean air for its processes, complained about having to clean up its effluents and emissions. And, to top it off, the lobbyist for the Pennsylvania Home Builders Association used the gathering of legislators just to try to pound home esoteric philosophies which had nothing whatever to do with the bills in question! The president of the Pennsylvania Electric Association assured us that sulphur dioxide goes upward in the atmosphere, *disappears*, and has no effect on us! I can breathe easier already!

We recognize the the Federation has stout allies in Trout Unlimited and the Izaak Walton League. But, listening to the proposals from industry which would tear apart the finest environmental statutes ever gathered together in any state in the union, we reassert our firm belief that the PFSC is needed now—in concerted, organized effort—perhaps more than it was 15 years ago when it was the conservation conscience of Pennsylvania, fighting an almost lone battle while the clock on the wall ticked off the wasted hours. The Fish Commission recognizes the Pennsylvania Federation of Sportsmen's Clubs as *THE* organization that represents most of our "stockholders" and, as such, needs a full-time Executive Director to keep their officers and director informed and prepared to head off the surrender to the polluters' lobbies.

It reminds us of the small boy who came downstairs one Sunday morning, leaving the rest of the family asleep. The clock was striking eight, but was out of order. As it struck "nine, ten, eleven, twelve—then *thirteen*, *fourteen*—the boy became concerned and raced upstairs, calling, "Wake up, quick! It's later than it's ever been!"

RALPH W. ABELE
Executive Director

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FRONT COVER: A peaceful early season scene along Pennsylvania's
famous Yellow Breeches Creek, Cumberland County. Photo by the Editor.

BACK COVER: A study in driftwood along the shores
of Pymatuning Lake. Photo by Edward T. Gray.

JAMES F. YODER, Editor

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◀ *Transparent "creel" of young angler fishing within Allentown's city limits, on the Little Lehigh, reveals a brown trout of respectable size.*

Right: Four hands are better than two for untangling mono mixup! That's Bill Fritzinger, left, and Paul Koscht, right, on Aquashicola Creek. Far right: Tom Fegely "takes a closer look" at trout from lower Pine Creek, north of Jersey Shore. Tom Fegely photos.

Fishing Outlook

by Stan Paulakovich

ON THE OPENING DAY of trout season, you can be sure of only one thing: unless you fish the most remote mountain stream, you're going to have company . . . and plenty of it. There is a good possibility too, that the water will be cold and the air temperatures likewise.

That first day, with all its adversities, still provides an aura of excitement unmatched throughout the entire season. On that wonderful day, many anglers will creel just a few fish; others will fare better and take home five or six speckled beauties. A few will take advantage of their knowledge of the stream and the fish's behavior now and "limit out" quickly.

Knowing where the fish are in any given stream is a lesson that is seldom learned in one trip. You have to fish and study the water on a number of excursions to really get everything in its place. The current energy crisis may dictate you fish a stream nearer to home and less familiar to you.

The average fisherman can increase his chances of catching early season trout by knowing just a few basic facts. First, most of the trout in the stream are those which have been stocked in the last month. They're not accustomed to the heavy current and you can bet they'll avoid it as much as they can by seeking protection behind some fallen snag or boulder where backwaters give them a breather from the continuous exertion of swimming to maintain position. Off to the side, where currents are not as strong . . . or in deep still pools, are other good places to explore.

Secondly, because the waters are so cold, trout

have little inclination to chase all over creation looking for food. They stay in their protected nooks and when something comes by that looks good, they will very slowly and deliberately sample it. When you look at a stream and decide where the trout should be, present your lure or bait at a "snail's pace." When you learn to do this, the reward will be a few more trout for the supper table.

Choice of hook size, leader strength and sinker weight on opening day are other things to take into consideration.

HOOK SIZE

Number 8 is a good all-around size for minnows, worms or cheese balls. The trout has a big enough mouth to handle this size hook and it's not hard to "disguise" the hook with the bait. For salmon eggs (and these are deadly for early season trout) use size 10 hooks. Buy hooks designed for salmon eggs; the short shanks on those hooks allow you to completely cover it with the egg.

LEADER STRENGTH

Even though the water is murky and swift, there's no need to use *cable*. Stick with either four or six pound test. This is supple enough to maneuver gently through each fish-holding pocket. Yet it's strong enough to handle even those occasional 24 inchers that are taken on opening day.



SINKER WEIGHT

This is where most anglers go wrong in early season. A common practice is to hang on a chunk of lead, pitch it out, and let it sit! This method catches an odd fish or two but, more often than not, the sinker rolls behind some snag in the stream and you lose your terminal gear. The idea is to put on just enough sinker weight to get your bait to the bottom where the fish are—yet not get snagged continuously. This will take some experimenting on your part, but it can be done.

Hooking fish is a secret that, once learned, is never forgotten. Whether you believe it or not, fish have the uncanny ability to strip the bait off your hook, or “hold” a lure, and not be caught! Setting the hook should be automatic; with delicate leaders, it takes but a light twitch. For medium strength tackle, a good wrist snap is necessary. With heavy tackle and big fish, you need a real sock-it-to-him jerk to get the hook in beyond the barb. Too often a fish is on for quite a while then spits out the hook. When this happens, you’re not setting the hook properly.

Hooking is sometimes a matter of luck, both good and bad. WP Jim Valentine tells the story of a western Pennsylvania fisherman who was using a large live sucker and an 18-inch wire leader. The hook was a specially made short shank offset model that would penetrate better when the strike was made.

A musky took the bait and retreated to its den to scale and savor it. After a wait that seemed like an

eternity, it started its second run and the angler reared back to set the hook. Once, twice, and sure enough he was on. The fight was strong but short-lived; suddenly everything went slack. Something was on but not the heavy musky. The angler reeled in to find his fresh sucker mangled, but still on, and the hook impaled in the side of another decomposed sucker that had been in the gullet of the musky!

To a degree, all fish have hard portions within their mouths and it takes a little effort to get the barb of the hook sunk in. This hardness is illustrated in another musky tale. A musky fisherman trolling a Suick lure across a Canadian lake had a vicious strike. The motor was cut immediately and, on the first run, the line snapped as if it were thread. Faulty drag or old line, most likely, was the cause. A borrowed lure worth close to four bucks was somewhere down below—in the mouth of a musky. The motor was started and back over the site of the strike they went to look for the lure. There, floating on the surface was the line—but not the lure. Fumble-fingeredly, the line was fed down through the guides and then securely knotted to the line on the reel. The slack was picked up and, miraculously, the fish was still on, lurking somewhere down in the weeds with a chunk of wood in its mouth. Very gingerly another strike was made and the fish took off like a flash. The guide remarked, “He’s on good, you’ll never lose him!” With that the fish jumped and, with gills flared, it tossed the lure a dozen feet into the air! Sadder, but wiser, the angler vowed he would never strike lightly again!



STRONG SUPPORTER

I am renewing my subscription to the Pennsylvania Angler even though my fishing time in your state will be drastically curtailed because of the gasoline shortage. I believe it is the most worthwhile reading of any publication available in the northeast.

The first article that I read each month is Mr. Abele's editorial. It is reassuring that we have someone of his foresight and *realistic* wisdom in the conservation field. If more men of responsibility would take his balanced and "thought-out" approach to the problems of conservation and progress, I believe many of today's problems would be dealt with *before* the crisis stage.

Even though I am primarily interested in fishing, I think that the boating section has a place in your publication because many fishermen of necessity are also boaters, myself included.

CHARLES T. AUGUSTINE
Sicklerville, N. J.

LOOKING UP!

I have fished for 70 years and fishing is not like it used to be . . . it is a lot better!

JOHN W. SAXTON, SR.
Julian

Thank you, sir! We're going to accept your observations as the gospel truth! Ed.

STRANGE HAPPENINGS!

After reading Stan Paulakovich's article in the December 1973 issue of the *Angler*, I began to reflect on the kind of year my two fishing partners and I had on the Susquehanna. Jack Herneisey, John Murray, and myself have been fishing the river from the tip of the Harrisburg International Airport to the end of Hill Island, close to the York County shore, for several years. But, none could have been any more weird than the year we just completed. In past years our memories were mostly of

getting soaked by torrential thunderstorms and then high-tailing it for home.

The first indication that this was not going to be a normal year came when one of our trio got his plug stuck in the overhanging branches of a tree on one of the small islands in the middle of the Susquehanna. As "Skipper" Herneisey floated the boat close to the island, I reached for the branch to free the plug. As I freed the plug, something fell past my head and into the river with a splash. After recovering from the surprise, I looked down and saw a large owl floundering in the water and trying to get back to shore. With the aid of one of our oars the owl climbed back to safety. As we drifted away, the owl looking a little flustered was trying to figure out where he could sleep without being bothered by fishermen.

My wife, who was somewhat skeptical about my owl story, finally got a chance to go out in the "Skipper's" boat one calm summer evening. Everything was going along fine, for a while. We had caught some nice bass and there was a lot of movement in the water so we stayed in one spot longer than usual. As we sat there, my wife was watching the "expert" angling of Mr. Herneisey when a fish broke water about two feet from the boat. The leaping bass sailed over the side of the boat right into my wife's lap. When we finally subdued our new passenger, my wife was credited with catching a 12 inch bass—without a rod. In recognition of his "world record" leap, the fish was returned to the river.

Trying to sell these two stories to someone who hadn't seen them for himself was almost an impossible task. Our final river escapade of the season brought about another strange happening, and nobody believed that one either.

Early one Sunday morning, we were plugging familiar waters when John Murray noticed a small sparrow flying overhead. It could have been the youngster's first trip away from the nest because he was beating his wings for all they were worth but wasn't making much progress. The little bird was getting closer and closer to the water no matter how hard he tried, and finally plunked into the river about fifty yards from us. We pulled in our lines and started after him and got there to find only the little fellow's head above the wa-

ter. We netted the bird in our landing net and took him to the nearest island to grow up.

It was definitely a memorable year. We didn't always catch as many fish as we would have liked, but the relaxation, the "good deeds" and the humor made it all worthwhile.

JEFFREY C. PETERS
Middletown

CURIOUS

Please tell me which body of water is pictured on the first page of the Annual Report in January 1974 issue of the *ANGLER*.

STEVE WEBSTER
Montoursville

That beauty is Black Moshannon Dam, in Centre County, Steve, near Philipsburg—the Philipsburg with one "L"! Ed.

LONGS FOR HOME

It would be hard for me to select a favorite department or story since everything I've read is well written and informative.

I earned dry fly fishing "spurs" on Pennsylvania waters under the tutelage of the world's best fisherman my Dad, Jack D. Stephenson, of Bloomsburg. While I admit to a bountiful fishing life here in Idaho, I must admit the nostalgic tug in my stomach deepens when I read of the streams I have fished and see photos of the ground I have walked over. I have always considered myself fortunate to have grown up in Pennsylvania where fishing was almost a way of life and to have been blessed with a father who cared enough to share his fishing experiences with me. Your excellent magazine has helped me relive many of those experiences.

JACK E. STEPHENSON
Pocatello, Idaho

TACKLE TIP

I would like to make my contribution to the *Angler*. As you know, it is time to refill our fishing supplies. I have a tip for the angler who ties his own leaders. Buy a loose leaf filler for photo albums. This can be purchased at a stationery store for under \$1.00. Cut out the photo holders and there you have it: the perfect leader holder. Since it is plastic, it is tough and waterproof.

MIKE SEHENUK
Hathoro

Attention Fly Fishermen

Here's your 1974 listing of Fish-For-Fun & Fly-Fishing-Only waters

FISH-FOR-FUN-AREAS

CENTRE COUNTY

Spring Creek (Fisherman's Paradise)—Six-tenths of a mile, from the lower boundary of the Spring Creek Hatchery grounds to the upper boundary of the Paradise.

NOTE: No fish may be killed or had in possession in this project.

CUMBERLAND COUNTY

Big Spring Creek—Nine-tenths of a mile, from the old Thomas Dam to the Strohm Dam.

Letort Spring Run—1.5 miles, from the bridge on Township Route 481 downstream to the Reading Railroad Bridge at the southern edge of Letort Spring Park.

Yellow Breeches Creek—One mile, from Boiling Springs downstream to the vicinity of Allenberry.

NOTE: Wading is permitted in this project.

ELK COUNTY

West Branch Clarian River—Five-tenths of a mile, beginning at the intersection of U.S. Route 219 and Route 24007, upstream along Route 219 to the Texas Gulf Sulphur property line.

NOTE: Fishing is permitted from the east shore only.

FRANKLIN COUNTY

Falling Spring Branch—Three-fourths of a mile, from the bridge on L.R. 28003 in the village of Aqua, downstream approximately 300 yards below the bridge on Route T319 to the property line of Leonard Zeger and Valley Quarries.

JEFFERSON COUNTY

North Fork of Red Bank Creek—Two miles extending from U.S. Route 322 in the borough of Brookville upstream a distance of two miles.

LAWRENCE COUNTY

Slippery Rock Creek—One-half mile from the Heinz Camp property line downstream to a point one-quarter mile downstream from the Armstrong Bridge on L.R. 37052.

LEHIGH COUNTY

Little Lehigh River—One-half mile, from Price's Bridge to a point south of the Hatchery Road Bridge.

McKEAN COUNTY

Marvin Creek—Nine-tenths of a mile, from proximity of the high voltage line (three miles south of Smethport) downstream 0.9 miles.

MERCER COUNTY

Neshannock Creek—One mile, extending from the bridge at Route 258 upstream to the bridge at Route 58.

POTTER COUNTY

Kettle Creek—1.7 miles, beginning approximately 500 feet below the first bridge where Route 144 crosses Kettle Creek northeast of Cross Fork and extending upstream 1.7 miles.

MODIFIED FISH-FOR-FUN PROJECT

Standard "Fish-For-Fun" regulations are in effect, EXCEPT that spinning lures are allowed and wading is permitted.

WARREN COUNTY

West Branch of Caldwell Creek—2.5 miles, from the West Branch Bridge upstream to Three Bridge Run.

FLY-FISHING-ONLY AREAS

ADAMS COUNTY

Canewago Creek—2 miles, from the bridge at Rt. 34 upstream to the bridge at Zeigler's Mill.

BEDFORD COUNTY

Yellow Creek—1 mile, from the mouth of Maple (Jacks) Run upstream to Red Bank Hill.

BERKS COUNTY

Tulpehocken Creek—1.4 miles, from the line fence .2 mile below Rt. 06024 bridge upstream to 486 yards above Scharff's Bridge on Rt. 49B.

CARBON COUNTY

Mud Run—2.6 miles, in Hickory Run State Park.

CHESTER COUNTY

French Creek—1 mile from the dam breast at Camp Sleepy Hollow downstream to Robert's Food Locker.

CLEARFIELD COUNTY

Traut Run—1.5 miles, from one mile upstream from Rt. B79 with the Kurtz property to and including the Trout Run Corporation property.

CLINTON COUNTY

Young Woman's Creek, Right Branch—6 miles, from confluence with the Left Branch up to Beechwood Trail.

CUMBERLAND COUNTY

Green Spring Creek—1 mile, in the lower portion of the stream on the C. F. Beckner property.

DAUPHIN COUNTY

Clarks Creek—2 miles, extending from the Game Commission's parking area on Pennsylvania Rt. 325, approximately one mile downstream from the YMCA Camp, downstream to the Game Commission access road at the Old Iron Furnace.

DELAWARE COUNTY

Ridley Creek—1 mile, from the falls in Ridley Creek State Park, downstream to the mouth of Dismal Run.

ELK COUNTY

Mill Creek—1 mile, from Nagle Bridge to headwaters of Norton Reservoir Dam.

FAYETTE COUNTY

Dunbar Creek and tributaries—14 miles, from stone quarry to headwaters including tributaries.

FRANKLIN COUNTY

Falling Spring Branch—1 mile, property line of Leonard Zeger and Valley Quarries downstream to a wire fence crossing the Robert E. Gabler Farm (approximately one-quarter mile upstream from Interstate Route 81).

INDIANA COUNTY

Little Mahoning Creek—4 miles, from the bridge at Rochester Mills upstream to Cesna Run.

LANCASTER COUNTY

Donegal Springs Creek—2 miles, beginning at the upper boundary of the John Heir Farm below Rt. 141 downstream to the bridge on Rt. T334 near the confluence with Chickies Creek.

Octoraro Creek, West Branch—1.25 miles, from Legislative Route 36010 upstream to approximately 100 yards below the new bridge on Route 472.

LEHIGH COUNTY

Little Lehigh River—1 mile, from Lauderslager's Mill Dam upstream to Twp. Road S08.

LYCOMING COUNTY

Slate Run—6.5 miles, in Brown Township.

Layalsack Creek—3 miles, from Lycoming County line downstream to Sandy Bottom.

Gray's Run—2.5 miles, from Gray's Run Hunting Club property line downstream to concrete bridge at the old C.C.C. Camp.

MONROE COUNTY

Big Bushkill Creek—6 miles, on the Recessa Falls Scout Reservation property except 200 yards on each side of the falls.

McMichael's Creek—2 miles, from Rt. 80 bridge upstream to west end of Glenbrook Country Club property.

Upper Tobyhanna Creek—1.25 miles, between Tobyhanna Lakes No. 1 and No. 2.

POTTER COUNTY

Cross Fork Creek—3.2 miles, from the swinging bridge at Bear Trap Lodge downstream to the lower boundary of the Weed property.

Lyman Run—4 miles, from Lyman Run Lake to Splash Dam Hollow.

SOMERSET COUNTY

Clear Shade Creek—1 mile, upstream from cable located across stream above Windber Water Dam.

TIOGA COUNTY

Francis Branch, tributary to Slate Run—2 miles, Elk Twp., from mouth upstream to Francis Leetonia Road.

Slate Run—.5 mile, in Elk Township.

UNION COUNTY

White Deer Creek—2.5 miles, from Cooper Mill Road bridge which crosses White Deer Creek upstream to Union-Centre County line.

VENANGO COUNTY

Narth Sandy Creek—2.5 miles, from L.R. 60073 bridge at Polk upstream to old bridge at Polk State School pump house.

WARREN COUNTY

Brakenstraw Creek—1 mile, from 500 yards below Rt. 27 bridge downstream to 100 yards above the L.R. 61010 bridge.

Caldwell Creek—1.2 miles, from Selkirk highway bridge downstream to Dotyville bridge.

WAYNE COUNTY

Butternut Creek—2.5 miles, from bridge on L.R. 63004 downstream to the mouth.

Dyberry Creek—1 mile, from the Widmer property line about one mile below Tanner's Falls downstream to Mary Wilcox Bridge.

WYOMING COUNTY

Bowmans Creek—1 mile, from 150 yards below bridge on Legislative Route 292 to wires in vicinity of confluence of Marsh Creek.

YORK COUNTY

Muddy Creek—2 miles, from Bruce to Bridgeton.

FOR NEWCOMERS TO THE ART—

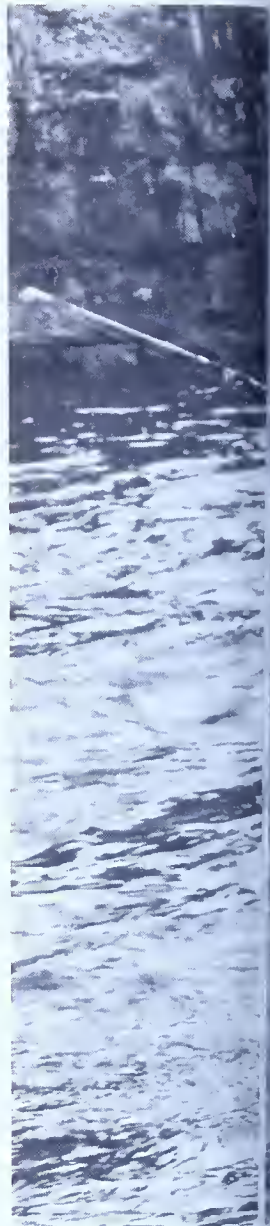
For a listing of regulations which govern fishing in the areas listed above, consult the Summary of Fishing Regulations and Laws which you received with your license.

One away . . . two to go!

Trout Tripleheader . . .

On a minnow rig!

by Nick Sisley



I flipped open the bail and flicked a short ten-foot cast into the inviting pool in front of me. A turn of the spin reel handle closed the bail and the line drew tight. I pictured the bait, a small minnow, skimming over the rocks, looking ever so alluring to any hungry trout that might be lurking in the depths.

Wham! As the minnow reached the bottom of the swing, I had a solid whack. I raised the rod tip high, but one crank of the reel handle later he was gone. As the minnow flopped back into the water five feet from my boots, yet another hungry trout attacked viciously. This one didn't get away.

It had been another one of Pennsylvania's wet Mays—one in which it rained 24 of 31 days. The Fish Commission stocked more trout than ever before, but because of high, murky water and bad weather, Keystone State fishermen had not been out in full force. There were oodles of browns, brooks, and rainbows still in our streams, ready to attack most baits when water conditions became favorable.

They were favorable on Spring Creek just prior to Memorial Day. Spring Creek is not only one of Pennsylvania's most popular streams, it is one of our best producers, too. Famous Fisherman's Paradise, the

granddaddy of all fish-for-fun spots, is located just a few miles upstream from Bellefonte, Pa., in Centre County. Like many of the waters in this area, Spring Creek is a limestone stream. Fine for trout, but more importantly, water of this nature produces insect life in abundance—and that's mainly what our trout feed on.

But let's get back to the fishing. When your first cast produces not one but two strikes, a fellow gets the optimistic feeling that it's going to be one of those good days astream. I coaxed a fat brook trout onto the bank, pounced on him, worked out the hooks and put trout number one into the creel. My minnow was a sorry sight, so I removed him from the rig, threaded up a fresh, fat one, and anxiously cast into the headwaters of the pool again.

I tensed as the minnow again scooted over the bottom, touching the top of an occasional rock, but then it swung and straightened without incident. Undaunted, I slowly turned the reel handle—sort of coaxing the minnow up through the edge of the current. The little spinner blade ahead of the bait turned enticingly.

Wham! At least one trout couldn't resist the temp-



tation. This one was a fat brown, twice the size of the first brookie. He danced and bulldogged several times across the pool, giving an excellent account of himself. Finally I coaxed him up onto the muddy beach, and he flopped himself onto higher ground. Two casts, and trout number two was in the creel.

I was fishing with two of my grouse hunting compatriots, Lawrence Cignetti, and his son Joe. It has only been since retirement that Lawrence has found the time to angle for trout, but now he does it several times a week, from the opening of the season until warm waters put trout off their feed. Then in September and October you'll often find him casting a minnow into some Pennsylvania trout stream again.

Joe has been an ardent trout fisherman for many years. He's a grand master with a minnow and minnow rig. I'd like to tell you about it.

I personally like freshwater fishing of every variety, and if I have a speciality, it's expanding my knowledge about the subject. I like to take trout on streamers, nymphs, and of course, most of all, dry flies. But I'm no purist. I've taken my share on countless occasions with a red garden worm, too. Freshwater crayfish tails are one of my favorite trout baits, and

although I've taken a few on salmon eggs, it's never been a method that really produced an overabundance of Keystone trout for me.

I've even taken trout on minnows, but it had only been on a few occasions that I tried this method. I was interested in learning Joe Cignetti's minnow fishing techniques. I think you'll be interested in learning about them, too, because they certainly produce.

Joe's equipment consists of a 7-foot spin rod and one of several reels that he utilizes. His mono is usually 6 or 8 pound test. But the real trio of secrets to his success is the minnow rig, the minnow itself, and unquestionably, most important of all, his presentation of the bait to the fish.

The minnows you can buy at a bait shop, and as a general rule, the smallish ones perform best, although if you are after predominantly brown trout, they sometimes have a special affinity for minnows of a slightly larger size. During the winter months when fly fishermen are tying Quill Gordon dries, Black Ghost streamers, Muskrat nymphs and the like, Joe Cignetti is tying up minnow rigs for himself, his Dad and his friends. Here's how he does it.

continued on next page

Trout Tripleheader

continued from preceding page

He takes a length of 6 pound monofilament, and to one end ties a tiny gold swivel. It is to the swivel, of course, that he ties the monofilament from his spinning reel. Joe next puts on a small colored bead. He buys the beads in bulk in various colors and has no special preference as to which one works best. Below the bead he threads on a small Colorado or Indiana type spinner. Some are gold, some bronze, some silver, some have one side gold and one side silver. Joe doesn't lean toward any special combination. He just ties up a variety. The spinner and bead "attract" the quarry. Once they make their "inspection" they can't resist the "real thing," the minnow. The final task for completion of the minnow rig is tying a small loop about one inch long on the opposite end. The minnow rig is then ready.

Joe strings the minnow rigs on a card, and they are then in a convenient, untangled position to get at if he loses one or wants to change color of spinner, etc. Joe is the first to admit that he is not the originator of this minnow rig, but I've seen him in action, and I know how often he fishes. I'm betting he's caught as many trout with this rig as anyone. He uses no other trout angling method. The minnows are threaded with a needle, the loop of the minnow rig is slipped into the slotted end of the needle, and the loop of

mono from the rig is pulled entirely through the minnow. Joe next threads a size 14 or 16 treble hook eye with the loop, throws the loop of the rig around the hook, draws it up snug, then pulls the loop and the top part of the treble hook snug up inside the minnow.

It takes an extra minute or so to thread up a minnow in this fashion as compared to hooking him through the back or through the lips as might be done in walleye, perch, or crappie bass fishing. But trout almost invariably, especially in a stream, strike a minnow from the back side. If the bait is hooked through the lips or back, you miss the majority of hits. Not so with the threaded minnow and small treble hook affixed to the tail end of your bait.

No, this is not a new method of fishing for trout or rigging a bait. It's only one that very few anglers are familiar with. If more would "try it, they'd like it!" It's a trout producer par excellence.

In this day and age, shiny new spoons and spinners, bright colored plugs, and who knows what else "what's it" baits are constantly coming on the market, enticing anglers to buy what is on the sporting goods shelf. That's all well and good, but in the meantime, the experienced bait fisherman is scoring, and by that I don't mean the guy who dunks his worm in a trout hole and props his rod on the bank all day. I mean the bait fisherman who really fishes the water and knows how to constantly make his bait look attractive to the game fish—these are the guys that are



This is the minnow rig which served the author so well.

*The
author's
tripleheader
taken on the
minnow
rig.*



really bringing home the bacon, so to speak. Tying an improved clinch knot on a spinner, casting all day long—let's face it—it's easy. Bait fishing requires more experience, thought, and finesse. Bait fishing of all types is becoming a lost art because lure fishing is so easy. And I don't think that's so good.

My third cast didn't produce, but ten minutes later I enticed an especially fat brook trout on the minnow rig. When our Pennsylvania trout are in a hitting mood, they really know how to rap a bait. But of our three trout species, the little brookie puts extra gusto into socking a morsel. I really enjoy that, and, of course, their bulldogging fight.

Lawrence and I had dropped Joe off a hundred yards downstream. I hadn't moved from the hole where I started, whereas Lawrence had walked upstream, intending to fish his way down.

I missed the next two trout, but each of them pulverized my minnow, and it required a change. Shortly after that Joe arrived at my little hole, and I smiled confidently about the three trout I had when he asked if I was having any luck. I was especially proud of that brown trout that was just under 15 inches. It turned out Joe already had six, and two of his browns were even bigger than mine! To add insult to injury, he flicked his minnow into my pool and set the trebles into another trout on the first cast. I told you he was a grand master with a minnow and rig.

A few minutes later I had a jolting strike and immediately a fat rainbow shot from the depths, made

an acrobatic leap across the pool, and crashed down hard on his side. Similar aerial maneuvers were repeated three more times before I coaxed this one to the bank. As I removed the trebles, I said to Joe, "By gosh, Joe, that's four fish out of this pool for me—two brooks, a brown, and a rainbow. Three of them are of dog-gone good size. I'll bet there aren't many fishing holes, let alone entire fishing creeks, where an angler can be lucky enough to hang all three species in less than an hour of fishing. It's a "trout triple-header!"

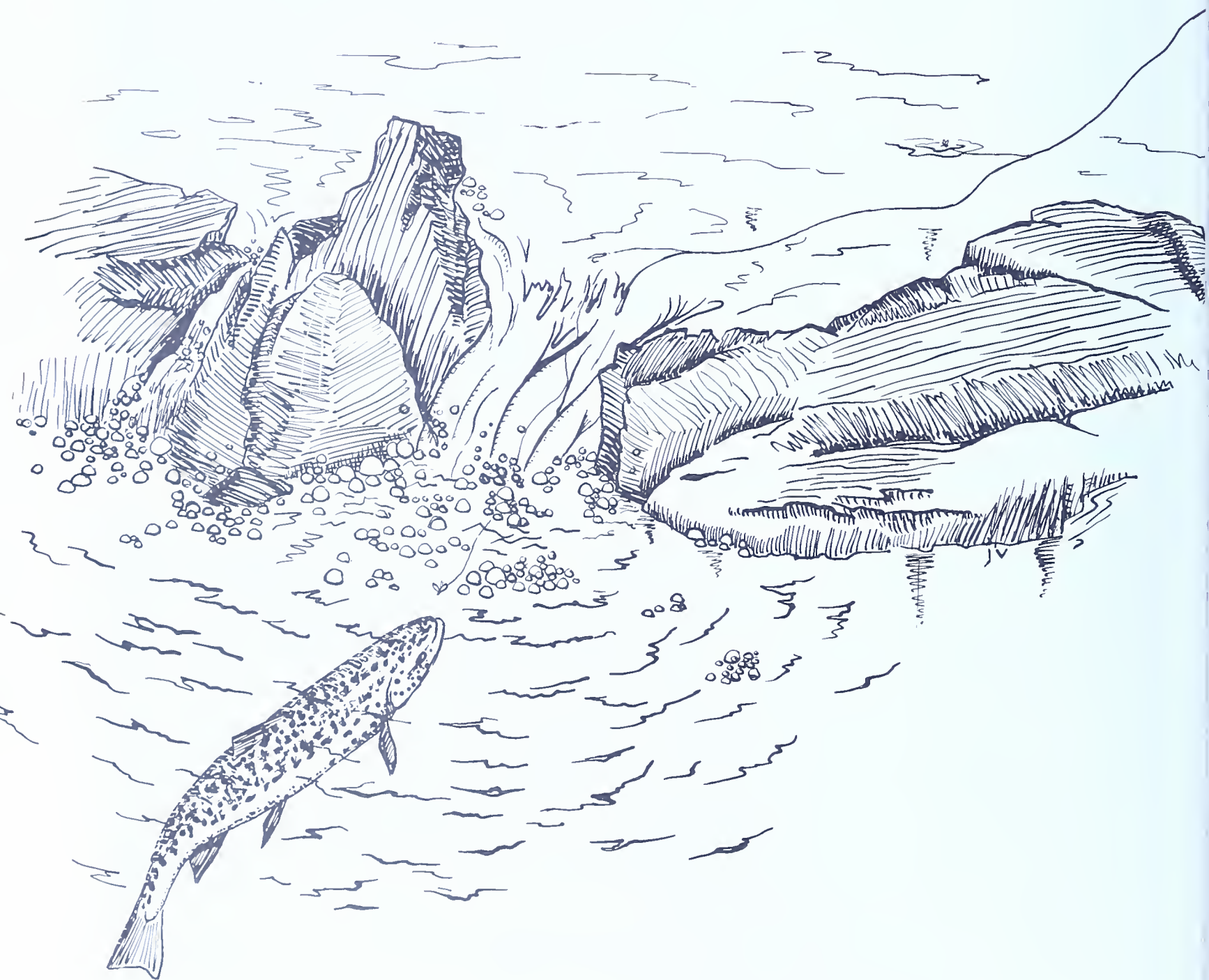
Watching Joe work over a pool with his minnow was a thing of beauty. The basic game plan was to cast across stream or slightly quartering downstream, flip the spinning reel bail shut, and depending on the current, crank slowly or not at all—trying to keep the bait skimming right across the top of the rocks. A split shot or two are usually added to help keep the bait down.

Joe figures that about half of his strikes come as the minnow is making its final swing in the current before becoming stationary. If he doesn't have a strike by then, it's a matter of slowly cranking the bait up through the side of an eddy where trout lay so often. As the bait is coming straight back up through the current like this, Joe figures he gets most of his remaining strikes. Additionally, a few trout hit the moment the bait hits the water or shortly after. But these hits are a small percentage compared to his overall success.

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*You might not agree
but the author claims
you can catch just as
many trout simply by*

"Mismatching the Hatch"



by John Crowe

Illustrations by John D. Voytko

Believe me, you must here make your flies after this fashion, or you will catch no fish.

"I know that imitation of rising insects will cause trout to take."

"Matching the ephemerids will solve your problems."

"The artificial fly should resemble the natural as closely as possible in every respect."

"Finding the right fly will do the trick."

These are statements from various authors of books on fishing for trout. I could supply many similar statements, and I could summarize the lot in a word: Bunk!

Such a summary may not be quite fair, but it is largely so. How largely? Well, how about an arbitrary 90%? I'm saying that nine times out of ten the fly pattern you are using is not the determining factor in your success, or *a* determining factor.

I'll go even further by adding that often a wrong fly is better than a right fly!

In this article, "wrong fly" means one unlike the natural on the water at the time. "Right fly," means one presumably like the fly on the water. By "unlike," I mean one noticeably different, at least in the eyes of the angler, in color, shape, and size from the natural insect. By "like," I mean one similar to the natural.

Okay? Now to get on with the argument.

When long ago I began seriously to fish with a fly for trout in Pennsylvania and elsewhere, I was entranced by what I read. The proposition was so logical: offer a trout an imitation of its natural food and, other things being in order, you had your trout. Of course the better the imitation, the more effective it would be. The experts said so.

Imitation of the adult mayfly (top) is a preoccupation with trout fishermen and fly tyers. But the adult form actually supplies a very small part of the trout's diet—much less than the nymphal form (bottom).

Enthusiastically, I spent time, money, and effort collecting needful materials and tying possibly needful flies, hundreds of them, wet and dry. I was prepared to match any hatch. I still have those flies, mostly unused.

It's not that I have quit fishing for trout. On the contrary, I spend more time at it than ever. But I'm getting ahead of what I set out to say: that much of what you read about fly fishing for trout is far short of gospel. Including, of course, what you are reading now!

Doubts about what I was reading and what I was doing began to develop as my experience increased. Occasionally I visited streams where in the evening I could listen to anglers known as experts. What I heard was not always enlightening. For example:

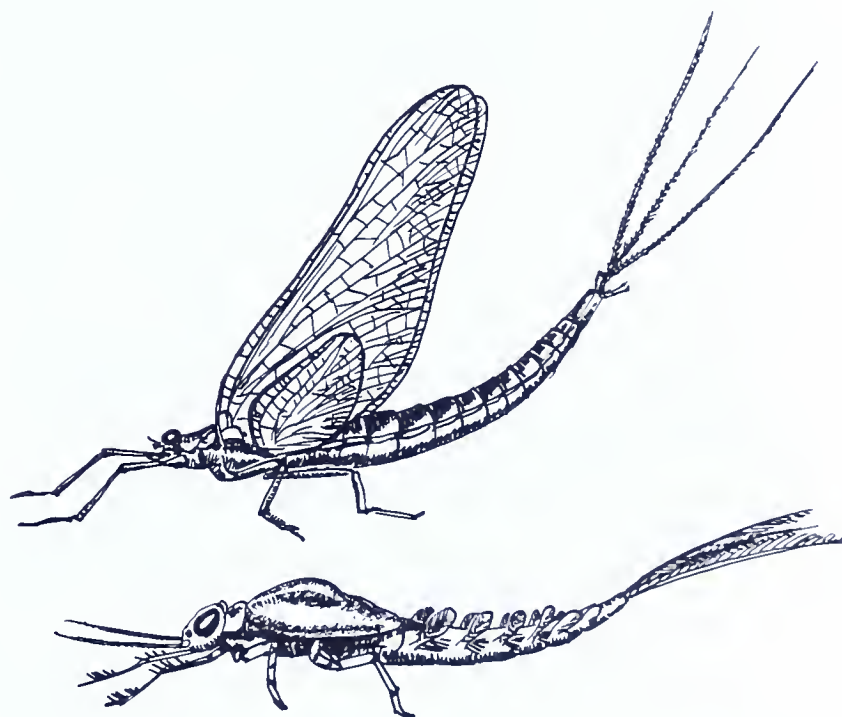
"I couldn't get 'em to touch anything but a nymph fished deep and slow."

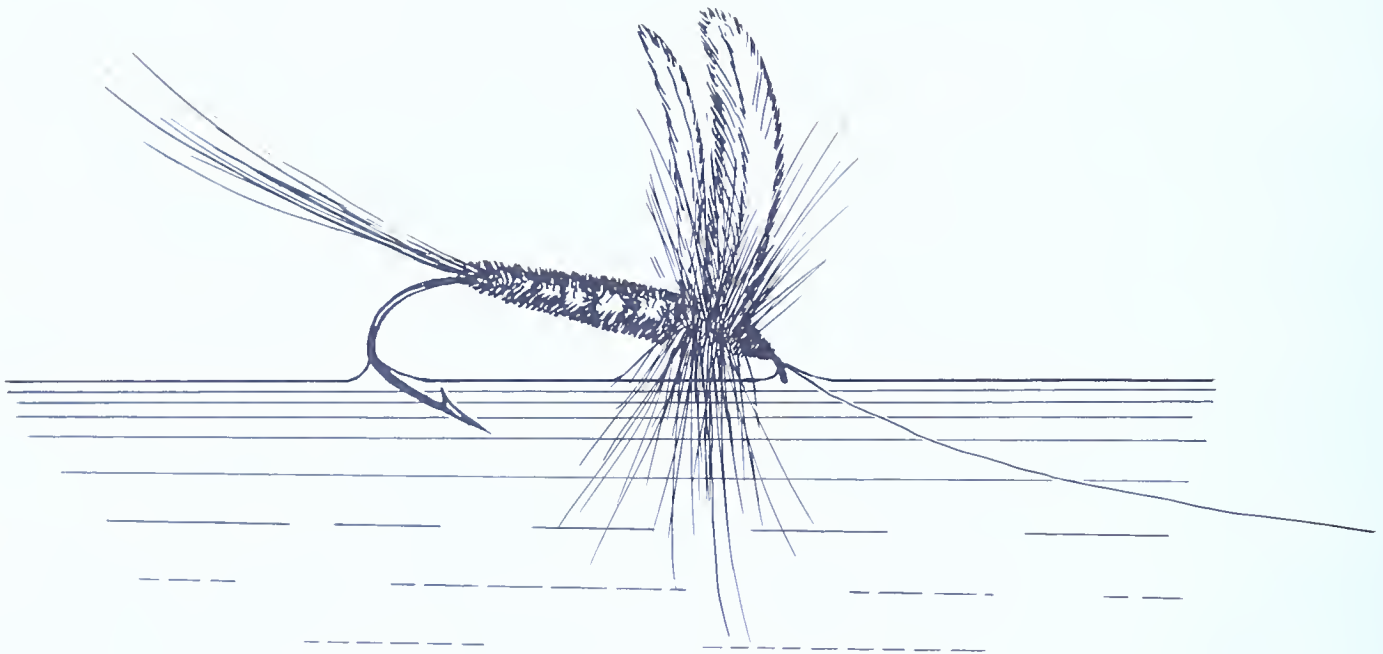
"You don't say! All my action came on a streamer, a Black Ghost."

"First time this year they were rising right to a dry. A No. 16 Blue Dun worked like a charm."

When in the same evening three good fishermen come away from the same stream to make three such varying statements, it's obvious that pattern or type of fly had little to do with their success. Yet it was to pattern and type they attributed success. Somehow it didn't add up.

Another puzzling occurrence was to see a good fisherman deceive himself—either deceive himself or deceive others, I never could tell which. I remember a man who used to spend part of his summers at a fishing lodge (now partly submerged by a dam) on the East Branch of the Clarion River in Elk County. He was well-known, and he rated his reputation because he *was* a good fisherman.





To be properly inconspicuous, a leader should, as a rule, be sunken.

One year on the East Branch there was a good hatch of a Mayfly rather closely matched by the standard Light Cahill; for days everyone was using a Light Cahill. But everyone wasn't catching trout. However, the expert was. In a decent sort of way he was glorying in his accomplishments as almost anyone would have in like circumstances.

One day he took me into consultation; I remember being highly flattered by the attention. Also he gave me a couple of his Cahills along with a confidential explanation of why they worked better than others: "I use a bleached lamb's wool for the body."

Bleached lamb's wool! I don't think I questioned his explanation at the time, but I have often thought of it since. And I still wonder if he believed what he was telling me or simply trying to impress me with his sophistication as a fly tyer. One thing I know now that I did not know then: he caught trout because he was a good fisherman, not because he bleached the lamb's wool he used for his Light Cahills.

Now he's fishing, I hope, the Elysian streams. And in disagreeing with him I feel a bit guilty in betraying his confidence. But I still admire him, for consciously or not, he was maintaining one of the great traditions of fly tying. Look at this bit from Izaak Walton's *The Compleat Angler*:

"From the sixteenth of this month also, to the end of it, we use a BRIGHT BROWN; the dubbing for which is to be had out of a Skinner's lime-pits, and of the hair of an abortive calf, which the lime will turn to be so bright as to shine like gold . . ."

In questioning the pattern credo, let me suggest an experience we all have had. A fly, spanking new from the vise, has produced a good trout. But the teeth of that trout in the wear and tear of landing have made

a ruin of the fly. Do we take it off to put on a new one? Not if we're like most fishermen. Though it has lost much of its alleged resemblance to the natural, with added confidence in it we send it back to work. And we keep using it until the pattern is unrecognizable. Seemingly, the more battered, the more effective it becomes.

I must be a slow learner, because for at least fifteen years of serious trout fishing I held to and revered the tradition of matching the hatch. It could not be questioned; its pursuit made up much of trout fishing literature.

"I don't care what fly I use, so long as it's a Gray Hackle."

Who was the first to say that I don't know, but he was a prophet not honored enough in his own country or elsewhere. First time I heard the epigram I regarded it as a humorous absurdity. It's humorous all right, but it isn't absurd.

About halfway through my slow learning career I began to fish with a man who used a Gray Hackle most of his time astream. And he caught trout consistently. In citing his performance I am not drawing from a few chance instances, having fished with him scores of times.

In a progressing (or regressing) belief that pattern doesn't mean much in fly fishing for trout, I began experimenting, perhaps to substantiate my belief. In the late '50's a large collection of old-fashioned wet flies came my way, and I began to fish them, usually with several on the leader.

At times I put on all flies of the same pattern and size; at others the same pattern and different sizes; and, most often, different patterns, those varying markedly to learn whether trout showed any real preference for one over another. My notes suggest

two conclusions:

1. That the Royal Coachman fished best, the Coachman second, and the Professor third. The performance of the Royal Coachman puzzled me; I had never thought much of it, perhaps because of being so thoroughly indoctrinated in the necessity for close imitation.

2. That size meant more than pattern, with the popular 12's well in the lead. The collection included sizes from 4's to 16's, and I tried them all.

An observation seems justified: that none of the better flies much resembled natural insects, the best one least. And if it seems that I am contradicting myself in saying that one pattern fished better than another: no, not at all. I readily agree that pattern may affect success. What I set out to say, have said, and now repeat is that nine times out of ten the pattern need not match the hatch. If you want more evidence, try multiple flies in wet fly fishing.

In *The Book of Trout Lore*, published in 1947, I said some things about close imitation of the natural, things I would now like to "UN-say"! I own to one of the statements beginning this article. I used to be too believing of what I read, not believing enough of what I experienced.

But I was learning, albeit slowly. A few more years and I was ready to drop out of the school which taught the necessity of imitating natural trout stream insects. For one thing, such aquatic insects seemed to be disappearing, at least in appreciable numbers,

from many streams. For another, perhaps a corollary, there was an increasing incidence of terrestrial insects in the trout stomachs I examined.

For some time I had been experimenting with terrestrial insect imitations which cast as pleasantly as the conventional flies of trout fishing. I had worked out a grasshopper that was satisfactory, a caterpillar, and a beetle. All of them produced very well, and all seemed especially effective on big trout.

Tying grasshoppers and caterpillars was as much trouble as tying conventional flies, but tying the beetle was simplicity itself. Perhaps for that reason I always had a good supply in my fly-box, and I found myself using a beetle more and more. Even my friend of the Gray Hackle, mentioned a few paragraphs back, began to use it more and more. Gradually I was coming to the conviction that it was not only easier to tie but also better to fish than the conventional patterns I had spent much of my fishing life learning to tie and to use.

In 1965 I resolved to try an experiment: to fish nothing but the beetle for trout from season's start in April to finish in September. That year I think I caught as many trout as I ever had, and I know I caught more big ones!

Don't accuse me of exaggerating to make a point. I do not attribute the good year wholly to using the beetle. There were other favorable factors. One was a schedule allowing me to fish every day that weather seemed suitable. Another was that all my trout fishing

Study each aspect of a pool with a view of how it can be fished best.



in 1965 was in Pennsylvania on streams I knew well. A third was that for some reason 1965 was a good year—good from the crowded fishing at season's beginning in April to end in September, when one might have a whole trout stream to himself.

One phase of fishing I did miss in the 1965 experiment of carrying only beetles astream: the psychological lift that comes with a change of flies when fishing is slow. That lift is an imponderable, but a reality nevertheless.

In following seasons I repeated my experiment, although not to such a degree. I carried conventionals but used them only occasionally, finding trout usually willing to take the beetle. And so by 1970 I was ready to make a break away from the tradition of imitation of natural trout stream insects.

Not a complete break. You will recall my saying that 90% of the time, or nine times out of ten, one pattern is as good as another. But there is that tenth time, and when it comes, I concede that a fair imitation of the fly on the water, a "right" fly, will outfish a "wrong" fly. But for the most part you need not worry about what is the "right" fly.

If you are willing to consider the proposition that pattern is of slight importance, say the 10% of this article, you are of course entitled to ask what makes up the other 90%.

There are several answers to that question; or a composite answer, one made up of factors more important than pattern. These are factors of constant importance, not occasional as is pattern. In an accompanying chart I have attempted to give them weight as related to the arbitrary 10% of pattern.

First is approach. A scared trout will not "take." Probably the most common fault in approach is hurry. You should approach any intended victim with deliberate care. Don't let it hear you, see you or your shadow, and so far as is possible don't let it see any of your tackle except the fly, although almost certainly it will see the leader. However, if all else is right, it may disregard a leader properly inconspicuous.

To be properly inconspicuous, a leader should, as a rule, be sunken. If afloat, it sets up light refractions which may be more noticeable than the fly itself, very bad when one is dealing with shy or educated trout. In my opinion, the sinking of the leader is a more important consideration than the extreme length or fineness so much advocated.

Incidentally, in such places as Pennsylvania's fish-for-fun Paradise, where trout become incredibly leader-shy, dapping is most effective. Where trout are accustomed to people tramping about, approach is no problem, but leader inconspicuousness certainly is. Dapping for wild trout is not always practical; but where it is, the problem of approach is acute.

Good wading gear helps. Felt soles may keep you from slipping or floundering about noisily; so may chains or hobnails. But with or without such devices, you must move deliberately and carefully. Doing so is the key to successful approach.

Most trout fishermen think that white or light-colored clothing is very damaging, some going so far as to wear camouflaged hats, jackets, and shirts. One thing certain, it doesn't hurt to play it safe.

Second factor of constant importance is presentation. It must be good. But presentation, no matter how skillful following a bad approach, is effort wasted. Good tackle helps; but in itself does not obviate other faults.

In presentation the matter of casting is overrated. The ability to cast, along with the right tackle, is useful in catching trout, but it need not be an ability to cast 70 feet, or 60, or even 50. I don't know, but I suspect that in Pennsylvania more trout are caught at ranges under 35 feet than over. And I do know a great

Estimates of comparative importance of trout fishing success factors as discussed in this article, assuming average conditions of weather and water.

	Small stream	Medium stream	Large stream
Pattern	5%	10%	15%
Approach	40%	30%	20%
Presentation	40%	30%	30%
Knowledge and study of the stream	15%	30%	35%

many trout remain uncaught because anglers get out too much line in attempting to reach too far.

As already noted, the leader is crucial. A 7½- or 9-foot leader laid down right is far better than a 12- or 14-footer laid down clumsily. An angler's picking up his cast because the leader didn't come to the water right has saved the lives of countless trout.

A third consideration, one much neglected, is taking the time and making the effort to learn the water. As one moves along a stream he should be constantly looking ahead, studying water about to be fished—the currents, the depth, the cover—any aspect determining where trout might lie. Each aspect should be studied with a view of how best to fish the place, the angler all the while avoiding any act or commotion affecting his chances adversely.

A parenthetical caution: most of us have an inclination to give special attention to the part of the pool where the water flows in, the head, devoting to it our best efforts. But in later season, with low

water, trout feed elsewhere, perhaps at the extreme tail of a pool, or ranging all over it. In such a circumstance we often spoil our chances even before we get into what we would ordinarily consider casting position. Low water trout are super-shy.

Okay, we have fished a pool or other piece of likely water. Then we go to the next place, often too hastily. A good place for trout deserves study after fishing as well as before if we intend ever to fish it again. Time spent in studying water after fishing is an investment sure to pay a high return. Most big trout in Pennsylvania are caught by a planned attack, knowledgeable fishing that doesn't come or first acquaintance with water.

That's my answer to the question of what is more important than pattern in successful trout fishing—far more important. Give your best attention to the above considerations and you'll catch trout consistently, even though you consistently mismatch the hatch.

Streamside Life

The Phoebe

by ROBERT LEO SMITH

On one of those pleasant April mornings when the faint, earthy smell of a returning spring hangs in the air, the Phoebe returns to the streamside. The early trout fisherman sees it first, perched on a willow branch overhanging the water. It sits there, flirting its tail and calmly surveying its surroundings. Suddenly, it darts quickly out over the water, returns to its perch, utters a brisk "pee-wit, phe-be," accented by a sharp pump of its tail.

The Phoebe is a streamside bird with a peculiar affinity for bridges. If you will wade beneath any bridge and look up at some of the beams, the chances are good that you will see the nest of the phoebe. It is a beautiful, but bulky, affair, built of mud, covered with mosses, and placed on the top of a beam—or plastered against the stone supports. Here, in the cool dampness, the phoebe incubates its 3 to 8 white eggs, spotted with a reddish or blackish color, oblivious of the traffic overhead. The bird may build its nest also on ledges overlooking streams, in gorges, on walls, on a porch or in abandoned buildings.

Like other flycatchers, the phoebe lives almost exclusively on insects—caught on the wing. Having sighted its prey the bird darts quickly from its perch, captures the insect with a snap of its beak and returns. Among the insects on its menu, aside from the many streamside flies, are moths, cucumber beetles, grasshoppers, locusts, crickets, caterpillars and even ticks.





Left: These brown trout fry will survive on food from the yolk sac for several days before moving out from the nest.

Taking A Closer Look

BY TOM FEGELY

A TIME OF PLENTY

All living things possess tremendous potential for reproducing their own kinds. Fish and other aquatic animals especially, would flood their environments with offspring if left unchecked by predators, disease and other limiting factors.

Imagine the consequences if every one of the 20,000 eggs of a three pound smallmouth or the million and a half eggs of a five pound carp were to grow to maturity. Or, picture the mid-summer chaos of a farm pond in which each of the 120,000 eggs of a half dozen female bullfrogs defied nature and exploded into an equal number of tadpoles then adults. It stands to reason that such populations could never develop, much less exist for any length of time.

Water, itself, ensures that eggs and sperm come together during most aquatic mating rituals. Fertilization, however, is never one hundred percent suc-

cessful as some eggs never begin that first step of life stimulated by a male sperm.

Fertilization is probably as efficient in trout—98 percent or better—as in any other species of fish. The instinctive mating method of a fish has much to do with the immediate demise or success of the eggs. With powerful thrusts of her tail, a female trout excavates a nest in the gravel beneath a fast riffle. As she prepares to shed her eggs, a mate draws near to simultaneously exude a cloud of milt into the water. Moving upstream a few feet the act is repeated, the eggs of the previous spawn being buried in the gravel washed downstream by each subsequent nest. Before the female is spent of her 6000 or so eggs, she may be attended by other males.

It is estimated that about 10 percent of these newly-laid eggs wash away with the current and never find a place within the safety of the stream floor gravel. The other 90 percent that are successfully buried remain hidden from predators for the 30 to 50 days it takes them to incubate. The same current that carried them to their aquatic nursery now supplies them with life-giving oxygen. Sometimes, however, heavy rains or the destructive activities of man cause an excessive amount of silt to lodge in the gravel and suffocate the developing eggs.

Those that hatch remain in their stony nest for a time, subsisting on nutrients stored in the yolk sac. As this food sac is absorbed, the larval fry take on a more streamlined and fish-like appearance and begin to emerge from the nest. It is now that mortality takes a tremendous toll as birds, turtles, snakes, and

Below: The familiar gelatinous covering over these green frog eggs protects them from both predators and siltation.





Above: Standing rigidly amid a sea of lily pads, the great blue heron is a threat to any fish up to a foot in length. Right: Crayfish eggs develop on the underside of the female where they hatch and undergo two or three molts before dropping off. Below: A largemouth bass fry must eventually sacrifice parental protection when the time comes for it to move away from the nest, but that's all a part of nature's normal order.



other fish, prey on the innocent fry. Of 5000 fertilized eggs, perhaps only one will ever mature to perpetuate its kind and assure the presence of wild trout in our streams.

SPECIAL DANGERS

All water animals, no matter what the species, face special dangers during their youth. Unlike the nest-building trout and bass, bullheads and bluegills offer parental protection to their offspring. Anglers are probably most familiar with the nest-tending behavior of bluegills and pumpkinseeds along the shorelines of ponds and lakes. As a boy I can remember catching spawning sunnies with a bare hook as the protective male attempted to remove it from his nest. Upon returning him unharmed to the water, he would return to the nest and continue to guard it as if nothing had ever happened.

Sunfish are most protective while the exposed eggs are developing. Once they hatch, the male soon loses interest and leaves the fry to fend for themselves. Such is not the case with the bullhead, however. Carrying the "preservation of the species" process to the point of chaperoning and educating the young, male bullheads would win any underwater "father-of-the-year" award.

During April, May, and June, bullheads make saucer-shaped nests beneath overhanging banks, at the entrances of muskrat tunnels and in specially

constructed depressions. Here the female lays several thousand eggs in gelatinous clusters. For about a week, while the eggs are incubating, either parent may inhale a clump of eggs and expel it again, cleaning and aerating them in the process.

Upon hatching, the youngsters stay close to the nest. Later, as the whiskered fry begin to explore their watery home, the male accompanies them on their ventures in semblance of the proverbial "mother hen." The school may be guarded by him until the "students" are as much as two inches long. This extra protection accounts for the success of bullheads in a variety of waters throughout the United States.

Both largemouth and smallmouth bass also vigorously protect their late spring hatches. After guarding the eggs throughout incubation, sentry duty ceases once the fry leave the nest. Up to this time, however, the male will attack and remove anything threatening the young, including an angler's plug or spinner. This is why bass are protected in most states, including our own, until the spawning season is over.

SOME "BROADCAST" EGGS

Yellow perch, walleyes, shad and the members of the pike family—northern pike, chain pickerel and muskellunge—all indiscriminately "broadcast" their eggs and once fertilization is complete, leave them to survive the elements on their own. Besides predators,

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The Mill Creek has new "parents"!

Lower Merion High School

Adopts a Stream

STREAM IMPROVEMENT AGREEMENT
between
Lower Merion Township High School
and the
Township of Lower Merion

Lower Merion Township High School students agree to adopt that part of Mill Creek which flows through the Township property of Mill Creek Valley Nature Park, and to provide the leadership, labor and expertise in conjunction with the Pennsylvania Fish Commission to improve Mill Creek as a habitat for game fish and for erosion control, for as long as the Improvement Project remains a part of the school program.

The Township through its Director of Parks, Recreation and Shade Trees will provide the stream area, and whatever material is feasible.

Mark Adler
President of Student Council

Robert M. Ruff
Principal

Eric J. Murch
Director of Parks, Recreation
and Shade Trees of Lower Merion
Township

Lower Merion Township, Pa.

23 January 1974

Date

The photos on the opposite page show the students of Lower Merion High School in action. "Adopting A Stream" means work! With the typical vigor of youth, the crew tackles the most difficult aspect of the job in the two top photos—digging into both banks far enough to anchor the bottom nailer log. However, after carrying the log across the stream, bottom left, the digging seemed easier! Bottom right, dropping the nailer log in place. Although it's only the beginning, it's a start!

In his editorial in the September, 1973 issue of the Angler, Executive Director Ralph W. Abele made a plea for "every sporting and environmentally oriented organization in Pennsylvania" to *adopt a stream*. Although originally directed to the improvement of streams scoured of natural features by stream clearance channelizations following "Agnes," Lower Merion High School students adapted that theme to a somewhat different, though equally effective program.

The Mill Creek project, to our knowledge the first formal "stream adoption" of its kind, is part of a new course which will be offered to students next year—and to present students in Environmental Problems. The new course's title, "Fish & Water," is quite an over-simplification of its objectives. The course description reads, in part: "The study and promotion of sound ecological management and use of natural resources through the development of that portion of the Mill Creek which flows through the Lower Merion Park System . . ."

Fortunately, the course mentor, faculty member Art Wolfe, is both an ardent trout fisherman and a professional geologist—uniquely qualified to direct the equally enthusiastic students.

Surveying the stream with the students, Fish Commission Biologist Dick Marshall and Waterways Patrolman Frank Rotchford found the stream an excellent choice for such a project. Though low in pollution and high in aquatic insect life, electro-shocking revealed the stream was barren of trout. The water was too shallow to maintain the low temperatures so necessary for trout survival during the summer months. The Commission representatives recommended the placing of sixteen water jack dams to deepen the water, develop scour pools (to provide both cover and lower temperatures) and gabions to protect one wall of the stream from further erosion.

Nine students volunteered their Saturday afternoon to burying the first thirty-foot nailer log into the bottom of the stream and anchoring it six feet into each bank. Betsy Lebow, Jeanie Sundquist, Michele Gural, Leigh Hammer, Shelia Noonan, Tom Gilginas, Brad Moser, Walt Chain, and Howard Lassofo took shovels and boots and braved the cold water.

The dam still has a long way to go—another nailer log dug into each bank, planking between the logs and support buttresses—but at least a long-termed stream improvement project for the Mill Creek has been started.

The project will need support. An initial contribution of \$100.00 from the Lower Merion Rod & Gun Club helped get the ball rolling and it's conceivable that, as the work progresses, more support from other interested groups—as well as individuals—will be forthcoming.



KARIN
AHRENS
DESTEFANO

Plants Anglers Meet

Part I "The Bad Guys"

by Carsten Ahrens

Of the 300,000 species of plants that clothe the earth, the great, great majority of them are beneficial to anglers and others. They manufacture their own food, in no way contribute to noise pollution, provide man with food, drink, clothing, shelter, shade, medicine, etc.

But a small number of them seem to be hostile to us. They seem to want to be left alone and have made themselves so forbidding that we cannot eat their products or even touch some of them with impunity. Here are some of the common ones that every angler should know in order to avoid them.

... the touch-me-nots ...

1. NETTLES, including the common nettle (*Urtica gracilis*), stinging nettle (*Urtica dioica*), and wood nettle (*Leptocarpus canadensis*) are black sheep in an otherwise rather illustrious family that includes the American elm and mulberry. The genus "Urtica" comes from the Latin *urere*, "to burn," and that's what you'll be certain has happened if your skin brushes against a nettle. They are well armed with very sharp, hollow, brittle hairs, filled with formic acid, a "fire water" that makes your contact with them instantly and extremely unpleasant. You'll rue the day if you wear walking shorts and short sleeves where nettles grow.

2. POISON IVY, (*Toxicodendron radicans*), a member of the Sumac clan, is easily recognized by its vining habits, its leaves in the form of three leaflets, and its white berries . . . most of the Sumacs have reddish fruits. It is an extremely common pest in our state, and probably most citizens at some time or other have suffered from the rash and inflammation



when its resinous sap gets on the skin. Some people are amazingly susceptible to this sap and others are very resistant. I pulled out the plant without being poisoned for many years; then suddenly I lost my immunity, but after several years regained it again. While we probably can't eradicate the plant, greater effort could be expended in keeping it under control, especially since more and more of the public is growing camp-minded. Last summer we stopped at a campground whose proprietor was indifferent to the fact that his roadside sign was being taken over by this plant pest.

... the taste-me-nots ...

3. JACK-IN-THE-PULPIT, or Indian turnip (*Arisaema triphyllum*), is an unusual looking plant that grows in damp woods to a height of 1-1½ foot and bears two tri-lobed leaves that shade a brown and purple-striped, hooded, open tube or spathe (the pulpit) within which is the clublike spadix (the jack). The plant grows from a turnip-shaped corm or bulb which is intensely acrid, and if eaten raw, will inflame the lining of the mouth and esophagus. Cook the "turnip" and you may like it; the Indians did.

4. MAYAPPLE, wild lemon, or mandrake is a well-known plant that grows either as a flowerless stalk with one large, many-lobed leaf, or a stalk bearing a single white flower at the base of two leaves. The blossom develops into a lemon-shaped fruit that yellows as it ripens. The mature fruit is edible though insipid, but the unripe fruit, the leaves and rootstock, are poisonous.

5. JIMSON WEED (*Datura stramonium*) is a smooth, tough, rank-smelling weed with purplish

stalk, and trumpet-shaped, white-lavender, 4-inch flowers (much sought after by the crepuscular hawk moths who unroll three-inch "tongues" to suck the nectar). Large, very thorny seed capsules develop. When these are soft, in their early stages, both the case and the seeds are very toxic.

6. MUSHROOMS (Class: Basidiomycetes) are more often regarded as phenomena than as plants. They are saprophytic, non-green growths that slowly develop a web of underground parts before they suddenly pop up in rich, damp woodlands. There's something magic about them . . . maybe it's black magic. It's hard to understand why some plants . . . particularly true of mushrooms . . . store up within themselves compounds that they tolerate but which are poisonous to man. Most mushrooms appear first as a bud which expands into stalk and cap, filled with gills where spores develop. I gather the spongy morels each spring and a variety of others during the summer and fall. They're delicious though not particularly nourishing. I was taught by a nature-wise uncle to distinguish the edible from those that weren't. If you haven't a good teacher, keep clear of mushrooms. Some of the most handsome are venomous.

7. NIGHTSHADE (*Solanum dulcamara*), a vine-like relative of the tomato and potato, has a loose flower cluster with each blossom made up of five recurved blue petals and a yellow beak, formed by the anthers. They produce intensely green berries that ripen to crimson and glow as though enameled. The leaf is curiously shaped, having a large heart-shaped lobe and two smaller lobes at the base. The species is com-

continued on page 32

Trout Tripleheader

continued from page 9

Another thing Joe does is make long casts. The typical game plan is to fish downstream, wading one side, trying to cast all the way to the far bank (this, of course, is very much dependent on the size of the stream he is fishing). He feels that if he continually casts all the way across stream and has the bait swing across the current—each cast moving downstream a step or two—that he is covering almost all of the water in the stream. Even the fish on the far side, which usually do not strike when they first see the bait, will often tend to follow it as it swings in the current, then strike just before it straightens.

In addition to walking downstream, and continually making long casts across stream, Joe Cignetti also knows from his long experience not only the typical holding spots that trout use, but how to make his casts so that his minnow rig swings past in front of the fish in a most enticing manner. I guess it all

adds up to a total fishing picture. There is more to it than meets the eye. Those that have “in depth” knowledge of one or more bait angling methods are consistent trout takers.

The rest of the day I stuck close to Joe, watched how this expert handled his fishing equipment, and noted how he made his presentation in varying water conditions. It was not only an education; the end result was taking a “tripleheader” and a limit of Pennsylvania trout, and learning from an expert yet another way to be successful.

Joe's dad has been retired five years now. He fishes his son's minnow rig almost exclusively. During that time he has become quite expert at this method himself. Before the day was over all three of us had taken the “trout tripleheader”—brooks, browns and rainbows—all from one of the great streams in the entire state, Spring Creek. Give the minnow rig a try yourself someday. Once the techniques are properly learned, you'll be amazed at the degree of success. And give Spring Creek a try, too. There may be a “trout tripleheader” waiting there for you.

THE ANGLER'S NOTEBOOK



by Richard F. Williamson

FISH FACT: The “window” of a trout means the area it is able to see in the water. Because of the location of its eyes, the trout sees an area somewhat conical in shape. A rough rule to follow is that the trout has a good view of a round area with a diameter about twice the depth of the fish in the water.

Nymph fishing is good in stretches of medium fast water over a stony bottom or in the relatively shallow tail of a pool. Here is where nymphs of aquatic insects, loosening their hold on rocks, create a cafeteria for fish as they are swept along with the gentle current.

Big gobs of hair or hackle on a streamer do not make it a superior lure. As a matter of fact, streamers should be lightly dressed, so that when the hair or feathers get wet the lure will have the slim outline of a live minnow.

Eight or ten hackle fibers are not too many for the tail of a dry fly. The heavier tail will make the fly float better—and no fish is likely to reject the fly because it has more than the natural number of tail fibers.

Don't give up if the first cast of a fly fails to produce a strike in an obviously

hot spot. It sometimes takes at least four or five casts to bring action from an interested fish.

Weighted streamers are best for fish-ing in deep water, close to the bottom, and a sinking line is a great help to the angler. The technique is to work the streamer along the bottom, where it will appear to be a crippled minnow. An unweighted streamer is hard to fish deep in any event and almost impossible to get to a good depth if the line is floating.

Let stream current help you in fishing with a wet fly, streamer, or bucktail. Cast so that the stream current will carry the fly on an erratic path downstream and around boulders and other obstructions or back under overhanging foliage or cut-under embankments.

Nymphs of the Mayfly are prime trout food all season long, since they mature from early spring into late autumn. They swim actively around and in aquatic vegetation and on occasion venture into open water. An artificial Mayfly nymph should be fished with motion—but slowly.

Match leader tippet to lure. Tippets of 4X or even 5X should be used with

small flies, but when a streamer in size 6 or 8 is the lure, a stronger tippet, about 2X or 3X, is called for.

A worm on a hook will not auto-matically catch fish. The worm must be impaled lightly on the hook, so that it can wriggle in the water; it must be gotten down deep into areas where fish are feeding, and in size it and the hook should match—small hooks for small worms; larger hooks for bigger worms.

When streams are swollen, look for spots where fish can maintain their positions, both to rest and to feed, with the least exertion.

Spots where most anglers fear to cast are worth careful attention. A good fish may be waiting in areas where brush, logs, or some other obstruction clogs the water.

Any time the water is slightly off color, fish every square foot of it. Fish range widely in search of food when discolored water gives them protection.

In fishing for brook trout with wet flies, use one light-colored fly and one dark-colored fly on the leader, and fish the flies deep and slowly.

CO-OP NEWS

by Bill Porter

A monthly feature devoted exclusively
to Pennsylvania's Cooperative Nurseries—

*Cooperative Nurseries are fish rearing facilities
built and maintained by organized sportsmen
... at their own expense.
Fingerling fish provided by the Pennsylvania Fish
Commission are reared and released in public
waters of the sportsmen's choice
in accordance with policies prescribed by the
Fisheries Division's Cooperative Nursery Branch,
Robert H. Brown, Chief.*

SPRINGTOWN ROD AND GUN CLUB, INC., in scenic and historic Bucks County, sponsors a fine and active cooperative nursery in a setting from the past somewhat contrasted by its location near the crossroads of two modern Pennsylvania highways. Routes 212 and 412 form a junction about fifty yards from the nursery which consists of five impounded springs in an "L" shaped structure around an old spring house that also was used for butchering. The hooks, boiling pots, and a series of steps and shelves over the water are still intact and ready to be used again. In the meantime, the building serves as a storage shed for nursery equipment and trout food.

The cement walls were put in place about thirty years ago and made an easy development job for the club when the nursery was established. Sometimes impounded springs with a broad surface area make fish seining difficult. This is not true at the Springtown site. The water level can be dropped, forcing the trout into a deep pocket where they can be dipped out without too much fuss. The bottom of the impoundment is firm and the few soft spots have been filled with crushed stone to reduce the difficulty of the seining crew.

Larry Lewis, property owner, allows free use of the site with the only stipulation that the club maintain it properly and in a neat and attractive manner. This is being done and some improvements and safety devices have been installed. At the time of our visit, club members were in the process of constructing a fence around the impoundment to protect youngsters and others from falling into the springs from the walls that rise several feet above them.

Currently, the club is raising 2,000 mixed browns and rainbows with ten

palominos tossed in as an added attraction. The trout were in good shape and feeding well as we observed them. The club has a policy of no holdovers, which may reduce some of their potential troubles. Feeding expenses are cut, problems of over-crowding haven't developed, and poachers—there have been a couple of minor incidents—are not attracted to yearling fish as they are to the larger two and three year-old ones. All of which might be a point for some of the other clubs to consider where some problems have occurred or are happening.

Stocking is done primarily in the Silver Creek that flows from the nursery site and builds into an attractive stream as other brooks in the region join it. Quite a number of trout were seen in the clear water as we took a little jaunt along its banks with our host, Ray Divers. Silver Creek eventually flows into Cooks Creek, which is on the Fish Commission's stocking list. It is the philosophy of the Springtown Club to place their fish in the smaller stream thus increasing the total trout fishing waters in the region rather than simply adding to the number of fish in a smaller area. This has worked well for the fishermen in the region and apparently not all the fish are caught from the small stream as might be expected. There were plenty of trout darting about as we moved rather unceremoniously down the banks.

Remarking about the cold, as we walked back up toward the nursery, Ray did admit to one bit of trouble that the club faced during the summer season. This was the problem of algae, growing in the broad and flat area of the walled-in springs. Long-handled skimmers have been used to help remove the growth, but the "crew" is not satisfied with the method and its results. They admit to the

need for some better control device, but they also state that no serious fish loss has occurred. The temperature is fairly constant year-round; the rate of exchange is good; and to some degree, the plant growth supplies some shelter for the young fish. Nevertheless, algae is generally a problem to any nursery and Springtown intends to work on it. No doubt—they'll keep it under control.

We'd like to get back there this summer and see—besides it's a pretty spot to visit.





WHOOOPS!

There was about 8 inches of crust-ed snow on top of the ice on a local pond when my father and I decided to try a little ice fishing last winter. Walking ahead of me with a hand auger, he had only walked a few feet from the shoreline when he decided to test the thickness of the ice by drilling with the auger. He poked the auger through the snow and started to drill. Nothing was happening so he put more muscle behind the crank and began turning a little red, but still no results! We thought that the auger was broken until the *wood chips* started to fly! Only then did we realize that he was trying to drill through some poor guy's boat dock!

Fred Mussel
Waterways Patrolman
Lehigh County

OFF TO A GOOD START!

Since January 1, the Juniata River in the Mifflin-Juniata County area, has produced some fabulous muskie fishing. Especially noteworthy is the Newton-Hamilton area where five legal fish were harvested on Saturday, January 5. Though these have not been trophy size, the largest being 41 inches—18 pound, they are creating increased interest.

Richard Owens
Supervisor
Southcentral Region

"MRS. FISH WARDEN"—

A small stream borders my property in the Borough of Lewistown and is subject to "heavy" fishing pressure from the neighborhood youngsters. They catch a good many large creek chubs. It just keeps "Mrs. Fish Warden" (my wife) busy with the youngsters' many requests for worms, line, hooks, and help in removing the fish from the hooks. Needless to say, "Mr. & Mrs. Fish Warden" are happy to comply.

Richard Owens
Supervisor
Southcentral Region

NO ESCAPE

While checking an access area at Keystone Lake last summer, I found a pair of eye glasses and their case in the water close to the boat launch ramp. I found they were issued by a doctor from my home town which is 80 miles away from this lake. I informed the doctor of my finding, in hopes of locating the owner, but this proved unsuccessful. Several months later, a friend of mine, Herman Stange of Hollidaysburg, paid me a visit. Herm told me he had lost a pair of glasses at this lake, and wished he could find them. A little check and putting two and two together, the pair I found proved to be his. Small world? You bet it is! Last October, while fishing the Yellowstone River in Montana, the only other fisherman I saw on 75 miles of river was—you guessed it—a man from my home town in Pennsylvania!

Allen G. Stiffler
Waterways Patrolman
Indiana County

BIG HIT AT MORaine—

After working various fairs and shows, one of the best places I've ever worked was at the National Boy Scout Jamboree at Moraine State Park. What made the greatest impression on me was time and effort spent on the various displays set up for the boys. Our fishing license button, which was given to boy scouts, was in great demand! It was unbelievable, and I feel we were the "hit" of the Environmental Group with the Boy Scouts.

Warren L. Beaver
Waterways Patrolman
Crawford County

APPROPRIATE!

After apprehending two violators fishing in closed season, I spent about 10 minutes talking with them. One of them asked me where I lived. I told him, "On Justice Lane." His reply, "It figures!!"

Rick Grube
Special Waterways Patrolman

WILD RIDE!

Mr. Harry Lukins (nickname "Gump") and his wife set out for a day's fishing on the Susquehanna River. Everything progressed smoothly until after they launched their small outboard powered boat. Mr. Lukins stood up in the boat to start the engine, which naturally was in forward, and the quick acceleration deposited him over the side with just his feet and arms remained inside the boat! Fearful of being struck by the prop, or of having his wife in an unmanned runaway boat, he just couldn't leave go. As the boat ran around in circles, his wife scolded from the bow, "Gump, get back into this boat and quit *showin' off!*" After considerable struggling, he obeyed!

H. Benjamin Leamer
Waterways Patrolman
Perry County

"DREAM PROBLEM"!

Just after last Christmas there certainly had been some foul weather around the area, everything from snow to summer weather with hard rains and thunder. Well, if anything good can be said about it, the fish sure bit well for those who could take advantage of it.

The day after Christmas it rained very hard and the muskies at Warm Water hit about anything that hit the water. Meanwhile, up the river, at York Haven, the anglers forgot about the muskies—at least temporarily. They seemed to have had a "dream problem"—*trying to keep walleyes off the hook!* Not bad fishing, if you didn't mind the heavy rain.

Warren W. Singer, Jr.
Waterways Patrolman
N/York County

LET IT SNOW!

During the first two weeks of January this year the weather conditions were terrible. Snow, ice, rain, ice and more ice—the weather was extremely bad for fishing. Our hearty crew of river fishermen paid little attention to the elements, however, and caught muskies at the confluence of the Juniata River and the Raystown Branch at a spot called the Point Access Area. An average of two muskies per day were taken during this two week period. That's darned good musky fishing—in any kind of weather!

James T. Valentine
Waterways Patrolman
Huntingdon County

BEGINNER'S BAD LUCK!

One of our more avid fishermen, Mr. Chapman, is blessed with two daughters and, wanting to teach the girls how to enjoy nature, took his girls trout fishing to the children's area on Clarks Creek. As you know, kids, fishing tackle, lures, and moving water can cause all kinds of problems, and although dad was prepared for all this, a problem presented itself that left him speechless. Eight year old Cindy, fishing with a spinner, caught a trout and, not knowing how to reel it in, held the fish about two feet above the water and yelled! Before dad could help her, the trout jumped off into the creek. So, after giving Cindy a real good lesson on how to retrieve a fish, dad left to help his other daughter. Before long he heard a commotion and looking toward Cindy saw that she had hooked another fish and was bringing it in with gusto. When her rod came back, the fish came out of the water, over her head and onto the road. Dad and Cindy stood watching helplessly as a car ran over her first trout!

P. T. Hornberger
Waterways Patrolman
Lebanon County

NEW COVER?

During the flood of '72, as houses and trailers disintegrated when they hit the river bridge at Tunkhannock, I thought of all the "cover" that would be deposited on the river bottom—refrigerators, stoves, etc. If good cover made good fishing, we would find out the following year. Yep, it worked, the biologists are right! I personally know of seven muskies from 32 to 42 inches in length, that were taken at the Fish Commission access area at Tunkhannock in one month and also some nice walleyes up to 28".

Stephen Shabbick
Waterways Patrolman
Wyoming County

SALMON FISHING—

The Coho and Chinook Salmon run at Lake Erie are attracting more interest every year. This year I counted anglers from seven different states that were fishing for these fish while I was working at the Walnut Creek Station. Many fine catches were checked through the station and I believe the fish were heavier this year.

Raymond Hoaver
Waterways Patrolman
Tioga County

CONVINCED?

One day, during Christmas week, I was on patrol at Chapman State Park. There was ice on the lake, but as it was only about two inches thick, the Park Superintendent had signs up prohibiting any ice activity. The entire area was covered with snow and the temperature was in the low teens. The only sign of life was one car parked along the road, next to the lake. As I approached, the driver of the car got out and began to load ice fishing gear onto a sled. "You aren't going out on the ice, are you?" I asked. "Yep," he said. "Ice Fishing isn't permitted until there is at least four inches of ice," I reminded him. "Tough stuff," said the fisherman, "You can arrest me, or do what ever you want, but I'm going ice fishing, and *nobody's going to stop me!*" Away he went, down to the lake, out on the ice where he turned around, gave me a smug look, picked up a spud bar, gave the ice one poke, and promptly fell through . . . *right up to his belt buckle!*

George R. Jones
Waterways Patrolman
W/Warren County

HARD WORKERS

Last spring, the Albion Sportsmen's Club built a fish ladder on the west branch of Conneaut Creek. Much to my satisfaction, I watched several Coho Salmon struggle up it recently. I believe that many Lake Run Rainbows will use it this spring.

The club that built that ladder also had a CO-OP Nursery that put out a lot of fish last year and have 15,000 ready for release next year. They also maintain a parking lot for anglers and have the support of a fine community.

Harry H. Redline
Waterways Patrolman
Erie County

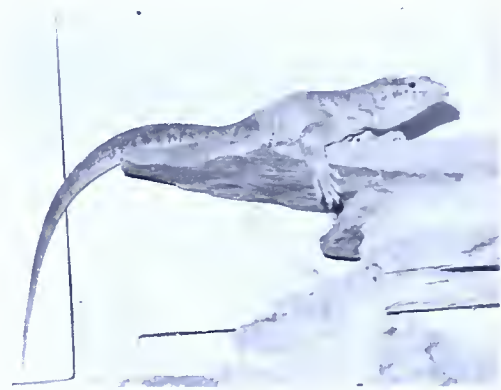
IT TAKES ALL KINDS!

Last December, while on patrol at Harveys Lake, checking winter trout fishermen, I heard a motorboat approaching the dock on which I was standing. When I looked up, low and behold there went a boat towing a water skier! I wonder what appropriate caption you might place on this article, "TO EACH HIS OWN," "DIE-HARDS," or just plain "NUTS"? I noticed ice forming on rod guides and lines all day!

Claude M. Neifert
Waterways Patrolman
Luzerne County

WHAT NEXT?

On October 12, 3:30 a.m., the Allegheny County Police, located at the Greater Pittsburgh Airport, telephoned this officer requesting assistance to capture a "Lizzard." A cargo plane had landed from Memphis, Tenn., and a vicious 2½ foot *green lizard* somehow had gotten loose in the terminal building! Answering the telephone while still in a sleepy daze, I



thought the caller had had "one too many," and gave the man at the other end of the telephone wire some real good advice. But the Allegheny Police Airport Strike Force succeeded in getting the "Green Phantom" into a box and safe keeping until the Pittsburgh Zoo reptile keeper arrived. The now famous, vicious flesh-eating green lizard, known as a Monitor, a native of Africa, has a new home at the Pittsburgh Zoo.

James Smith
Waterways Patrolman
S/Allegheny County

HERE'S WHY—

Frequently I am asked why the Pennsylvania Fish Commission stocks muskellunge in lakes that are stocked with trout. I try to explain that the reason is to provide year around fishing; trout fishing in the early spring and winter, and good musky fishing in the summer and fall. I was able to point this out very well the other day while talking with Mr. Charles Fox, a noted trout fisherman, outdoor writer, and author. At the Fish Commission owned Opossum Lake, near Carlisle, from October 1st to about the middle of November, Mr. Fox caught twenty-three muskellunge! I believe this type of fishing speaks for the success of the Fish Commission's program. Mr. Fox is one happy fisherman.

Perry D. Heath
Waterways Patrolman
Cumberland County

FLY TYING

"LITTLE BLACK STONE FLY"

by Chauncy K. Lively

The little black stone flies of the genus *Capnia*, along with those of *Taeniopteryx*, are common on many of our trout streams early in the season. Anglers who frequent the FISH-FOR-FUN streams during late winter are likely to find them in fair numbers in the latter part of February or in March and when weather and water conditions are favorable an ensuing rise of trout is not uncommon. This is a real bonus for the cold weather fly fisher; the chance to fish dry on a bright day, if only briefly, is a nice respite from the usual streamer fly or the deeply sunken nymph.

Capnia vernalis is a common eastern species and it is somewhat smaller than the familiar species of *Taeniopteryx*. These are amiable little creatures which may often be seen crawling along one's shirt sleeve as if to give the angler a clue as to the fly of the moment. *C. vernalis* has a shiny black head and thorax, a ruddy brown abdomen and distinctively veined blackish wings which, like all stoneflies, lie flat over the insect's back when at rest. Its legs are dark brown and the long antennae seem never to be still, constantly sweeping from side to side in a restless, searching motion.

Although the primary hatches of the little black stone flies generally end by mid-May there seem to be many stragglers which appear sporadically in the summer months and I have observed them as late as August. Thus, a representative pattern in appropriate size may be useful over much of the season and not limited to the early period of major activity. Our Little Black Stone Fly is such a pattern and it has

proved its worth as a dry fly not only when *Capnia* or *Taeniopteryx* were in evidence but on occasions when few insects were on the water.

There are several possible approaches in representing any of the Plecoptera as a dry fly and of initial importance are the posture and profile of the fly on the water. Unlike the mayfly dun, which floats with its wings erect, the stone fly assumes a squat, low-riding attitude which denies utilizing the design of the traditional dry fly. Instead, the hackling should balance the fly, both front and rear, without requiring tail support. In this instance hackles of the darkest chocolate brown are tied fore-and-aft, facing opposite directions, and trimmed top and bottom to leave only a spray of barbules extending out the sides. Although stone flies have two tails they are obscured



by the overhang of the folded wings and have been omitted in the pattern. Likewise, the antennae have been eliminated since they serve no function in a small dry fly.

The flat wings extending over the back of the insect may be represented by hackle tips, hair, bunched hackle barbules or other materials but I have found nothing so satisfying as a single Wonder Wing, thinly coated with vinyl cement for durability. The rounded tip of the Wonder Wing conforms to the shape of the prototype and the spacing of the reversed barbules provides translucency and a suggestion of vein pattern. Best of all, it retains its shape and silhouette after repeated use and is far superior in this respect to hackle tips, which tend to become mere slivers after repeated wettings.

Tying the Little Black Stone Fly:

◀ 1. Clamp a size #20 dry fly hook in vise. Then make a Wonder Wing by stroking a large, black hackle toward its root, inverting the barbles below the tip. With the hook as reference, measure wing length equal to length of hook, including eye and bend. With fine-pointed scissors sever the center rib (close to thumb as shown) without cutting barbles. Remove waste lower portion of hackle. Without relaxing left hand grip, spread vinyl cement thinly over wing with bodkin point. Hold near heat of work lamp to expedite drying.

2. When cement has begun to set, ▶ transfer wing to a spare hackle plier and set aside to dry completely.

◀ 3. Tie in fine tan or white thread at bend of hook. Select a good quality hackle of dark chocolate brown, with barbles no longer than twice the hook's gap, and strip off webby lower barbs. Bind by stem to hook, on edge, perpendicular to shank, with glossy side toward eye.

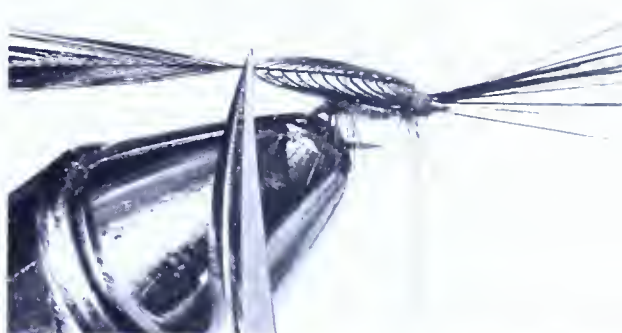
4. Wind hackle and tie off with half-hitch. ▶ Wax a short length of the tying thread next to the hook and apply a dubbing of ruddy brown fur. Wind dubbing forward for body and half-hitch thread well behind eye. Select a second hackle similar to first and bind at forward end of body, with glossy side facing bend. Wind front hackle and tie off with half-hitch.

◀ 5. Cut a wide V from the top of the wound hackles.

6. By now your wing should be dry. Re- ▶ move it from hackle plier and hold in right hand by tips of inverted barbles. Manipulating thread with left hand, tie in wing in flat position by barbs only, next to end of center rib. Make a few extra turns of thread and half-hitch. Then trim off unused hackle tip as shown.

◀ 7. Finally, whip finish thread at head and coat head with black lacquer. Then trim a V from undersides of hackles. This completes Little Black Stone Fly.

8. A Little Black Stone Fly—the natural. ▶



KEYSTONE CAMPING

by Thad Bukowski

Trout Camping at "OLE BULL"

IF YOU ARE both camper and trout angler, "Ole Bull" State Park in the upper Kettle Creek countryside might just be a topnotch spot to visit in the early trout season.

It's a safe bet going in that direction, for if you can't get accommodated for some reason because so many might be beating the water with both fly and spinning rods at this time, then just a stone's throw to the north is also the Cherry Springs campground.

"Ole Bull" has a unique historical background, and is on Rt. 144, a few miles south of the village of Oleana in southern Potter County. The little crossroads village of Carter Camp where Rt. 144 veers and one picks up Rt. 44 to Cherry Springs has a gas station/restaurant and displays hand-made trout flies with old style leaders if you are in need of them should you be passing by.

On all sides of these two overnight under-the-sky spots are numerous trout streams. Turkey gobblers might awaken you in the morning with their early sunshine calls from the distance and deer are so plentiful you might have to push one aside to toss your fly line. "Ole Bull" has 81 regular sites and 23 in an overflow area while Cherry Springs is larger and has both an adequate main campground and big overflow site from which no one is turned away.

The natives hereabouts casually talk about getting their limit of trout in the evening after a day's work is done. Most use the Adams, Hendrickson and March Brown; stating these are good early season selections.

Not only are there many trout because streams flow in all directions, but because anglers participate in many Cooperatives with the Fish Commission to add squaretails to the waters. Be it brook, brown or rainbow, they're all here. Although the stream which cuts through "Ole Bull" camp cannot be fished at the swimming hole above the dam in the park, many trout may be observed below

the small falls, including 24 to 26 inch beauties.

Besides the Kettle there are so many streams that one is almost at a loss deciding in which direction to turn. At the junction of the Cross Fork and Kettle, a few miles downstream, a yellow bodied Adams does well. If you take the dirt road, Rt. T-416, over the hill to the middle Cross Fork, you run into an interesting Fish-For-Fun area back in the hills after parking near the Bear Trap Camp. The Cross Fork has long been known for producing its lunkers. On another day, you might visit the Hammersley on the border of Clinton and Potter Counties. Fish Commission biologists who surveyed the area told me it has a bigger carry-over of browns throughout the year than almost any stream in the region. But Harry Chichester of Hollidaysburg, a real trout lover, who spends his summers in these areas in a camper, cautions that it gets "snakey" in the warmer seasons with rattlers common. You might run across Chichester in this country as I did on the Kettle Creek Bridge below Ole Bull where another outstanding Fish-For-Fun area exists.

There is an interesting sidelight to "Ole Bull" camping and trout fishing during the spring season here-

abouts. About three miles down the road from the camp, near the Kettle Fish-for-Fun area, literally hundreds of deer come off the hillsides in the evenings about 6 p.m. They mooch bread and corn while motorists stop to participate in the unusual happening. The local resident who feeds the deer also proved to me that there are hundreds of big trout in the Kettle's Fish-For-Fun spots when he demonstrated by tossing in handfulls of trout food. Explosions of big trout occurred, particularly at the lower Kettle Bridge. Trout came from behind rocks and the deep shade of the bridge area as though from a hatchery pool.

If you want to investigate trouting a bit farther from the "Ole Bull" environs, go over the mountain by way of Cherry Spring then southwest along LR 52001 to Wharton and Costello and take stabs at the East Branch and First Fork of the Sinnemahoning. One of the fine trout I landed from the East Branch was so highly colored I just didn't have the heart to keep it after it hit a grizzly streamer in the rushing waters. Quill flies of all types are hot in many spots of the Sinnemahoning watershed.

"Ole Bull", a 117 acre park was named for a famous Norwegian violinist who made several concert tours in the area about 1850, fell in love with the country, and tried to establish a settlement there, suffering many trials and tribulations. You, too, should fall in love with the countryside if you have a week or so to bring in your covered wagon and tarry for a while.

Early morning angler selects fly for Fish-For-Fun area on upper Kettle Creek.



BOATING

Questions & Answers

by Capt. Jack Ross

From G. B., Media:

"When running in even a light chop, spray is thrown back over the sides of my boat and into the cockpit. Would it be all right to fasten some strips of wood along the sides to divert the spray?"

—This would be your best bet. Make the spray rails of white pine or other flexible, straight-grained wood, long enough to run from just aft of the bow to about amidships. The rails should be about $\frac{3}{4}$ x $1\frac{1}{2}$ inches in section, and should be fastened just above the waterline with substantial screws or bolts.



From T. G., Pittsburgh:

"Where could I find a generator and starter to convert a Chrysler six inboard from 6 to 12 volts? The engine runs all right, but it's hard to start, especially when it has not been used for a while."

—Before going to this trouble and expense, why not try using an eight-volt starting battery, available from most large auto supply houses. You will have to adjust the voltage regulator so that the present generator will charge at a higher voltage, and that's all. On eight volts, the engine will start readily and even run better.



From J. R. S., Jamestown:

"On my 14-foot aluminum runabout, the 40 hp engine has to be tilted forward at the third hole or else it throws up a lot of spray; when I tilt it like this, however, it makes the boat pound. What can I do?"

—It sounds as if the engine might be a bit too deep in the water. Check to see if the cavitation plate on the engine is about even with the bottom of the boat. If the engine must be raised, you can build up the transom by adding a trip of wood of the proper thickness, being careful to secure it solidly.

From L. D., Pittsburgh:

"I heard that the Coast Guard is planning to provide full-time monitoring of FM marine Channel 16 on the rivers. Is this true, and if so, how will it work?"

—You heard it right. The Coast Guard has installed a series of repeater stations along the rivers so that a single operator at Owensboro, Ky. will be able to monitor distress calls from any point on the Ohio River and tributaries. Similar systems are being readied for the other rivers. When the net becomes fully operational in July of this year, a boatman in trouble will be able to get in touch with the Coast Guard in seconds. In addition, information on river stages, hazards to navigation, etc. will be broadcast several times daily on Channel 12, after an announcement on Channel 16.



From R. D., Ridley Park:

"Do you know if anyone makes a diesel outboard motor?"

—Two models of diesel outboards are offered by Petter Diesels, a division of the British Hawker Siddeley group. The 5-hp model weighs 185 lbs and sells for about \$1,400; a seven-hp kicker is 195 lbs and goes for about \$1,500. Both are single-cylinder, electric starting. The company's American sales headquarters is at 7 Delaware Dr., Lake Success, N.Y. 11040.



From G. R. H., Lemont:

"What is the lightest electric trolling motor made?"

—According to our listings, the lightest electric is the Aqua-bug, manufactured by SeaBorne Systems, Inc., 100 Merrick Rd., Rockville Centre, N.Y. 11570. This one weighs just 10 lbs., and puts out 35 pounds of thrust, which will push a light skiff at up to 12 miles per hour.

From S. J. C., Prospect Park:

"Do you know who made the Royal outboard motor, and where I could get parts for 3 horsepower model built about 1956?"

—The Royal was built by various manufacturers, including Gale and McCulloch, for sale through Standard Oil gas stations. For information, you could try writing Atlas Supply Company, 744 Broad St., Newark, N.J. Be sure to include the model and serial number of the engine.



From R. L., Ridgeway:

"How can you tell if a propeller is cavitating?"

—As the speed is increased, if cavitation occurs, the tachometer will take a sudden jump of several hundred rpm, then fluctuate erratically at a higher reading, although the boat will continue to run at the same or slightly lower speed. As the throttle is backed down, the prop will at some point again take a bite on the water, and the tach reading will drop suddenly and steady. Cavitation is an indication that the prop is unable to absorb the engine power, either because it has too little thrust area or because it is bent or out of balance. The usual cure is to increase diameter, decrease pitch, or both.



From J. M., Erie:

"Could you recommend a small, inexpensive radar practical for a 26-foot fishing boat used on Lake Erie?"

—Write for information to Bonzer, Inc., 90th & Cody Sts., Overland Park, Kans. 66214. Their Model SR 20 weighs less than 25 lbs., use only $2\frac{1}{2}$ amps of battery current, and sells for under \$1,500. If you are taking passengers for hire on fishing trips, the installation of a radar may save you enough in insurance premiums to pay for the unit in a few years.

A FISHING FEATURE FOR FISHERMEN-FROM FISHERMEN

FISH TALES



JOE MARTIN, 15, of Thompsonstown, landed his 42½-inch, 23-pound musky last September while fishing the Juniata River. Joe's catch earned him a Junior Citation.



MARK NOBLE, 7, of DuBois, is so happy with his catch of a 30-inch, 10-pound walleye. He was fishing Kyle Run Dam in Clearfield County last June and earned a Junior Citation.



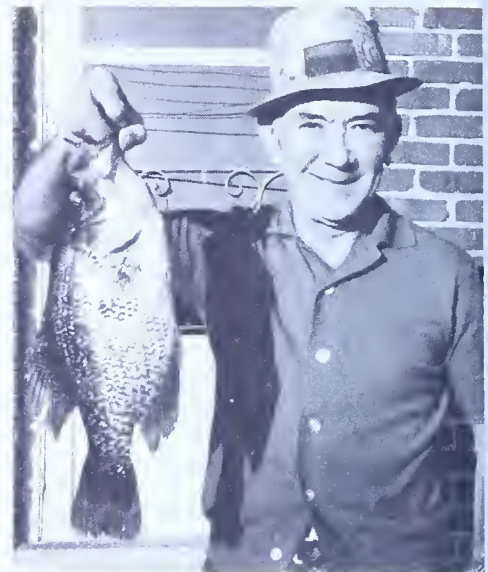
A Sykesville youth, DAVID RIEG, 11, (left) needed help from his brother John to haul in his 22-inch, 7 pound large-mouth bass from Reeds Dam in Jefferson County last June.



JEFF BEACH, 7, of Bloomsburg, proudly shows his catch of a 31-inch, 24-pound carp taken from the Susquehanna River in Bradford County near Standing Stone, last June.



JOHN KUREY, of Mount Union, caught his nice 20½-inch, 4-pound brown trout in Pine Creek, Tioga County, last August. He used a Pink Lady dry fly to lure this beauty.



A Bethlehem angler, JACOB CHRISTMAN, holds his 16¾-inch, 2½-pound crappie caught in Lake Wallenpaupack, Wayne County, last October. His bait was a minnow—the crappie's favorite.



KEVIN GIBA, 13, of Mechanicsburg caught his 16-inch, 1⅞-pound brook trout in the Yellow Breeches Creek, Cumberland County, last August while using a fly rod with cheese for bait.



KEITH SMITH, 12, of Etters, holds his 22-inch, 4-pound channel catfish caught in the Susquehanna River, York County last August. Keith made the catch using a crayfish for bait.



Angler **ROBERT GERWIG**, of Mt. Bethel, caught his 20¼-inch, 4-pound smallmouth bass on a flatfish while fishing the Delaware River in Northampton County last September.



TODD KAUFMAN, 9, of Halifax, caught his channel catfish from the Susquehanna River, Dauphin Co., last July. The fish weighed 2½-pounds and measured 21-inches. He used liver for bait.



STEPHEN SMITH, 15, of Etters, was fishing the Susquehanna River, York County, last July when he landed this 35½-inch, 4½-pound eel. This unusual catch was made using a nightcrawler for bait.



A Lehigh youth, **CLAIR SHECKLER**, 12, holds his 37½-inch, 15½-pound musky caught in Beltzville Dam, Carbon County, last September. He earned a Jr. Citation and a Husky Musky Hon. Mention.



Little **DENNIE BISHOP**, 4, of Mifflintown, is delighted with his catch of a 19-inch 4½-pound brown trout from Lost Creek, Juniata County. A nightcrawler was the bait that did the trick.



This young angler, **ROBERT DANENHOWER**, 11, of Allentown, caught his 19½-inch, 3¾-pound smallmouth bass on a worm while fishing the Delaware River, Northampton County.



STEVE VALENCIC, 13, of Natrona Heights, was fishing the Allegheny River in Armstrong County when he caught this 26-inch, 10-pound channel catfish using a sucker for bait.



A Shoemakersville fisherman, **BARRY BROWN**, caught his 22-inch, 5¾-pound smallmouth bass from Ontelaunee Lake in Berks County last September. He used spinning tackle and a popper.



DANIEL STECKEL, 7, of Allentown, (left) proudly shows his 30-inch, 12-pound carp. Dan and friend were fishing Northampton County's Delaware River when he landed his prize.

Taking a Closer Look

continued from page 17

other factors such as washing ashore during a storm or lakeside pollution may ruin the eggs.

Perch eggs are often smothered by the mud-turning activities of carp. Unlikely as it may seem, predators such as dragonfly nymphs and water beetles as well as minnows will feed on the fry of muskellunge. As many as half a million eggs from a single female shad may be shed into the flowing waters of a river. Those that survive until fall begin their migration to the sea. At the lower reaches of the river, near large cities, many of these three to four inch youngsters encounter pollution for the first time and perish in the oxygen-poor water. The annual return of the Delaware River shad is dependent upon a reduction of pollution from Trenton to Philadelphia, allowing passage of both incoming adults and outgoing fingerlings.

OTHER AQUATIC EGGS

Most amphibians—frogs, toads, and salamanders—lay their eggs in water although the mating ritual does not always take place there. A few species of salamanders, such as the hellbender and mudpuppy, guard the eggs during incubation but the majority of them do not. Toads may lay as many as 8,000 eggs in long strings around and over aquatic plants. Their

stringy appearance distinguishes toad eggs from the globular masses laid by most frogs.

Predation on amphibian eggs is minimal due to their jelly-like covering and the relatively short incubation period. It is when the eggs hatch into tadpoles and gilled larvae, however, that the predator's food supply is at its greatest. Millions of amphibious hatchlings provide sustenance for everything from bass to turtles and herons as the spring pond comes to life.

Crayfish have one of the most unique methods of egg incubation and protection. A single female produces anywhere from a dozen to several hundred eggs which, after internal fertilization, pass from the body and remain attached to her underside. At this time the female is said to be "in berry" since the eggs resemble a cluster of minute berries. In about two weeks the eggs hatch into tiny, colorless "crawdads." They remain attached to their mother a while longer until, after two or three molts, they drop off. From then on they must avoid trout, bass, catfish and other aquatic animals that relish "crabs."

In spring nature's bounty is at its peak. Eggs and young of all species abound for awhile, then settle back into balance as natural limitations take their toll. It is a time of plenty designed to compensate for a time of little. For by season's end, the populations will all have been drawn back in check, only to explode once again come the first hint of a new spring.

Plants Anglers Meet

continued from page 21

mon over Africa, Asia, and Europe (where it is called bittersweet); it came with early settlers to America where it has made itself completely at home almost everywhere. The foliage, flowers, and fruit are poisonous, causing convulsions and even death.

8. **POKEWEED**, garget, pigeonberry, scoke (*Phytolacca americana* . . . *decandra* of some authors) are large plants with reddish stems and smooth leaves that give off a rank odor when crushed. They grow from a perennial rootstock to a height of nine feet. Racemes of white flowers develop into drooping black berries well filled with a crimson juice that our forefathers used as ink. Mother, a farmer's wife, occasionally used the young shoots and leaves as boiled greens but discarded the water in which they cooked. Avoid using any mature parts of the plant, including the roots.

9. **WATER HEMLOCK**, beaver poison, musquash root, spotted cowbane . . . native (*Cicuta maculata*) and poison hemlock . . . naturalized from Europe (*Conium maculatum*) resemble the wild carrot or Queen Anne's lace but are coarser and usually taller. All parts of them: roots, stems, leaves, and seeds are poisonous and quickly fatal. They are members of the Parsnip family. Adults have died mistaking their tap roots for parsnips and many children have

perished by simply eating the leaves. All have flat-topped, white flower clusters and grow rank where swampy conditions exist.

10. **WAXWORK**, or false bittersweet (*Celastrus scandens*), is a shrubby vine but unlike poison ivy its simple leaves are harmless. Its small and greenish clusters of flowers develop into golden berries which in autumn open, displaying scarlet seed-pulp inside. These attractive clusters are often used in winter bouquets and for scores of years I have returned each fall to my boyhood haunts to gather them. But they're not for eating. The bright pulp, strongly alkaloid yet sweetish, probably suggested the name, bittersweet.

Mention should be made of several other plants that have poisonous berries; however, the fruit, though attractive, have such an unpleasant taste that one who bit into them would instantly spew them out. These would include:

11. **WHITE BANEERRY** (*Actaea pachypoda*)
 12. **RED BANEERRY** (*Actaea rubra*)
 13. **BLUE COHOSH** (*Caulophyllum thalictroides*)
 14. The **TIGER LILY** (*Lilium tigrinum*) should also be mentioned. This highly freckled, orange-red lily, a native of Asia, often escapes from gardens and goes native. Its bud and flower are both poisonous.
- (Part II will continue the discussion of the plants anglers are certain to meet, but they will be "good guys.")

It's time for the action!



Photo by RUSSELL GETTIG, Staff Photographer

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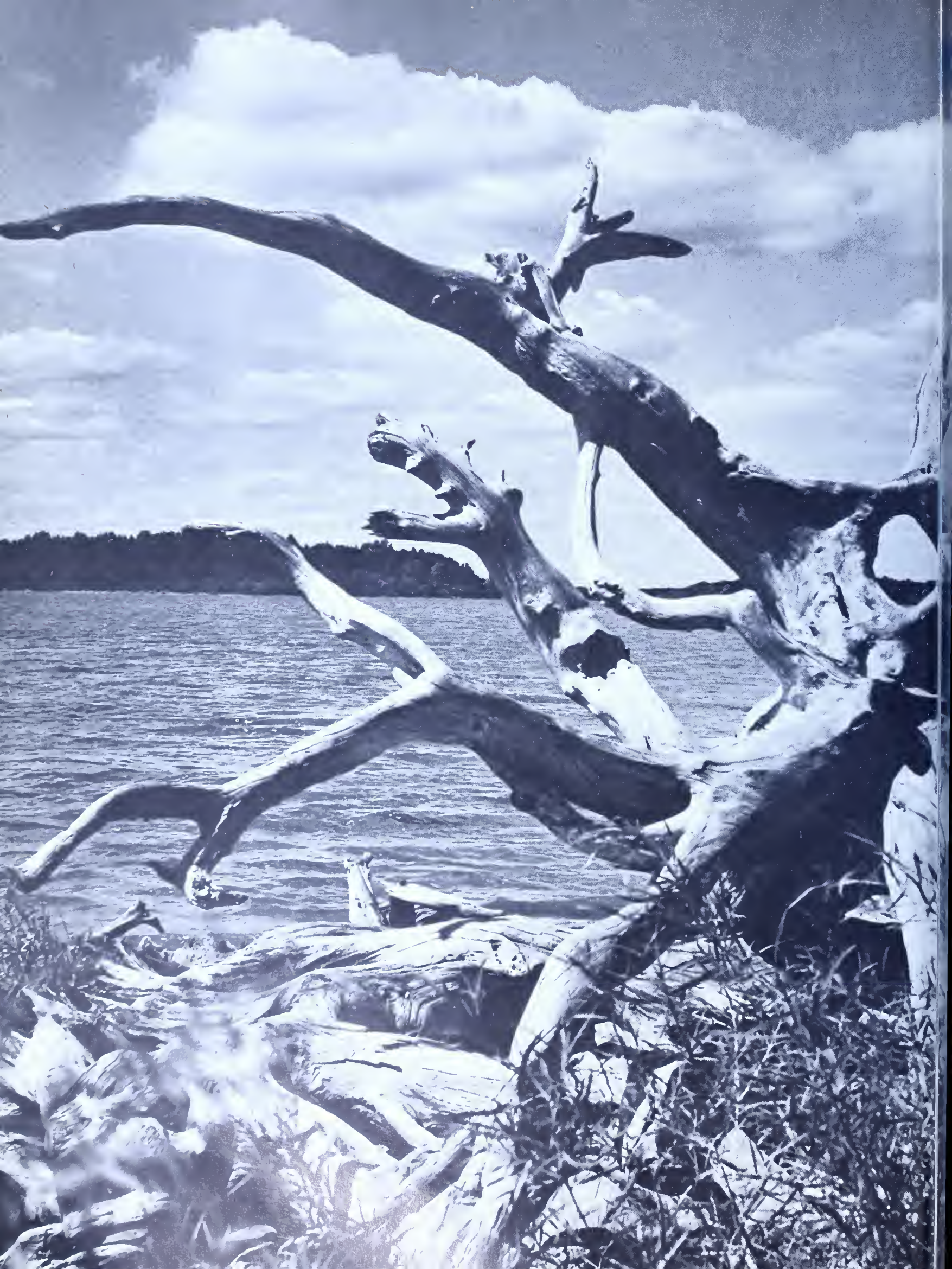
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THE LITTERBUG LAW



Achievements in 1973, according to the Department of Environmental Resources' Bureau of Water Quality, resulted in a gain of 160 miles of clean water for 1974. Consequently, the Pennsylvania Fish Commission is stocking 52 miles of "new" water in 23 different streams. In addition to that, we have picked up about 1500 acres in new lakes.

This is certainly good news to fishermen, but in looking at the debit side of the ledger, we find that we continue to lose streams to posting by landowners who have had their fill (literally) of littering. This hurts. But it hurts even worse to find that, after *FIGHTING to get new water* for fishermen—and *FIGHTING to preserve the water we already have* for the enjoyment of outdoor sports, we lose much of what we gain because of the outright bad manners on the part of fishermen, picnickers, and others who flock to our waterways in increasing numbers each year.

Our Law Enforcement Division reports that littering is second only to fishing without a license as the most frequently committed violation along Pennsylvania's waters. The penalty for littering has been \$10.00 for years; and that penalty has been far too low!

On March 22, 1974, Governor Shapp signed Act No. 43, increasing the fines for littering along the Commonwealth's waters. Persons found guilty of "throwing, leaving, discarding, or depositing any garbage, bottles, cans, rubbish, wire, glass, paper, cardboard or wooden boxes or cartons, or any other type of debris or trash" without permission of the landowner "shall be sentenced to pay a fine of \$25.00 to \$50.00 and costs of prosecution."

Enforcement of the new law, with its stiffer penalties, is going to be a must for our officers and those who help us. While we are doing our part, won't you do your part too? Start an "Anti-Littering" campaign within your own circle. Everybody knows it's wrong but they just keep doing it. Just one more beer can, or the plastic collar that held the six-pack, might be the last straw—all that's needed to send one more landowner shopping for another bundle of "No Trespassing" signs!

RALPH W. ABELE
Executive Director

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FRONT COVER: Any shad fisherman will admit that he doesn't
always land every shad he hooks. He'll also tell you that there's never
a photographer around when he lands one! Stan Paulakovich happened
to be in the right place, at the right time, and caught the action!

BACK COVER: The Editor had the good fortune to photograph one
of the sweetest anglers he's ever met on Clarks Creek in Dauphin Co.

JAMES F. YODER, Editor

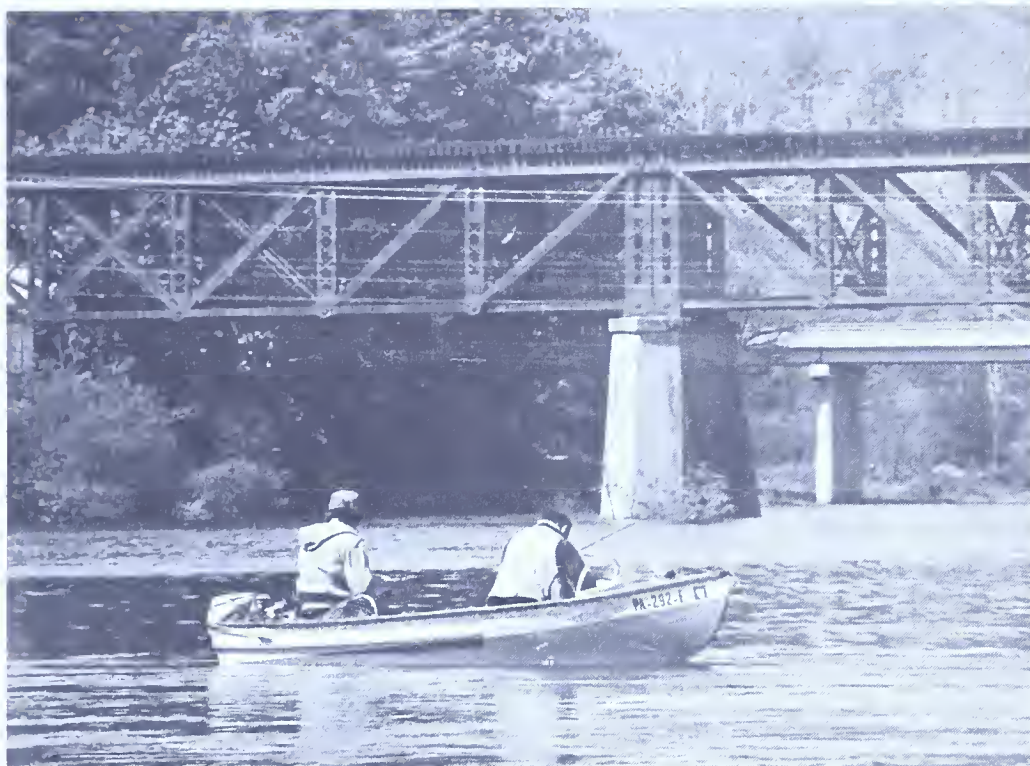
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← Fishing the Delaware River, at the mouth of the Lackawaxen River can be a rewarding experience for the fisherman seeking a shad catch.

*

The Fish Commission's access area → on the Zane Grey pool is a hotspot during the annual spring run. You should arrive early; avoid the rush!

Fishing Outlook

by Stan Paulakovich

Shad fishing in 1973 was kind of a disappointment. Not so much in the number of fish present or their size, both were above average. The disappointment was the small number of anglers who took advantage of this exceptionally fine fishery!

If the shad fishery is so good, why aren't the many dedicated fishermen living nearby taking advantage of it? It's probably because like any other fishing, you have to *work at it* to get results. You hear about this good fishing, travel to the Delaware, flail the water for several hours with no results and quickly become disgusted. It's a bitter pill to swallow and that's the end of shad fishing for you. Like it or not, you have to learn a little about the habits, life history and behavior patterns before you can consistently catch shad.

There is a lot more *unknown* about shad than *known*. The continuing study of the shad by the Delaware River Anadromous Fish Project and by other individuals and groups has brought many interesting and little known facts to light.

Early in the year, adult shad begin to congregate in mammoth Delaware Bay. Traveling in loose schools, their numbers may vary from small groups of several dozen, to huge schools of several thousand. Fresh from the sea, they are sleek and streamlined. The eggs and milt within their bodies have just started to grow and swell. As the days go by, this swelling will increase dramatically. It will constrict the stomach and render it in-

operative. Shad do not feed on their migratory trip until the eggs and milt have been spent.

As water temperatures rise, the shad begin their upriver journey. The first one hundred miles is hazardous. Water quality in the lower Delaware can be critical. Fortunately, the water is high and cold and the cold water will retard the oxygen-destroying action of the aquatic organisms and chemicals which are abundant here. Oxygen levels will remain high until late May in a normal year. After this time, and until cold weather sets in around November first, those levels may drop down to almost zero. This situation makes it impossible for any migrating fish to get through.

The schools of shad will average five to six miles a day going up river. Males and females seem to be equally represented in numbers and most of the fish will be four year olds. A few early spawning three year olds and some five, six, seven and even eight year olds will be among the fish making the trip. In 1972, two shad that had been tagged in 1971, were captured by sport or commercial fishermen.

The shad seemingly follow the river's deeper courses, sticking to the edge of the heavy current to conserve their energy. They rest frequently in the slack water above the riffles. They will arrive in the Lumberville area around the end of March. By mid-April, the forerunners will be up to Easton and beyond. The prime spawning grounds are located above

this point.

Early in May, the shad will have reached Port Jervis. By the end of the month, Hancock, N.Y., 330 miles from the mouth of the bay, will see thousands upon thousands of shad, heavy with milt and eggs, waiting for the spawning to be completed.

The average female will carry 180,000 eggs encased in a thin membrane. The milt of the male looks like white liver. It, too, is in a thin case. As the eggs ripen within the case, they move from the top, bottom, sides and center through the mass of eggs to the posterior end. As they accumulate in great numbers the female feels the spawning urge. She prefers the hours from 9:00 p.m. to midnight.

She will seek out waters two to three feet deep with a sand and gravel bottom and good current. The female expels the ripe eggs, from ten to thirty thousand of them. Each egg contains a microscopic pore in it. As the eggs are being deposited, the males pass over them and discharge the milky-white milt. A droplet of milt is drawn into the tiny opening in the egg and the miracle of life begins. The males and females will then either rest behind cover in the same pool, or meander further upstream to await the ripening of another portion of the eggs.

The eggs are slightly heavier than water and drift with the current for a short distance. Being extremely sticky, they soon adhere to gravel or stones on the bottom, hatching seven



to ten days later. About $\frac{3}{4}$ ths of an inch long, with a yolk sac under their throats, they are at the mercy of everything larger in the river!

Of the millions of eggs that hatch each year in the Delaware, only a small percentage survive. A week after shad are born, the nourishment from the yolk sac has been absorbed and they must now feed themselves. Midges, tiny larva, and nymphs form the bulk of their diet. By September they will have grown to three or four inches. They feed now on adult aquatic insects and any small land insects that fall into the water as well as nymphs and midges.

Now they must prepare for their initial trip to the sea. Feeding constantly, they gather by the thousands. Skittering over the surface like tiny torpedoes, they wend their way down river. Their arrival at Trenton Falls is around November 1st. Then, hopefully, water temperatures will be at 45 degrees and the oxygen content of the water in this ominous stretch will be high. Out to sea they go, to be back for a return engagement in four years.

After the completion of spawning, some adults will succumb to its harshness. Most will survive. Skinny and exhausted, they are just shadows of their former selves. They are called "downrunners" now. Drifting with the current and fighting to maintain balance, they begin to feed. Slowly their strength comes back. When they reach tidewater, theirs will be a difficult task to make it out through

the polluted mess into the sea.

If shad don't *feed* on their migratory trip, how can you catch them? They will strike, at just about anything small and bright colored. W.P. Mike Badner took two from the Zane Grey pool in under an hour on a Mickey Finn streamer. Shad strike in anger, fear or curiosity—possibly even because the habit of feeding is still strong within them.

Shad fishing calls for using the right gear. Spinning rods should be limber, rather than stiff. Use 6 or 8 pound test line on the regulation outfits and 4 pound on the ultralights. Make sure your drag is set properly—a loose drag is better than a tight one. The shad has tremendous speed and power on its first run when hooked. They can make mince meat of a drag set too tightly. For fly rods, don't use less than 6 pound test tippets.

Darts, miniature jigs, are the best lures. Red head, white body, with the yellow bucktail, is the most-preferred of all color combinations. Early in the season use heavy darts that weigh $\frac{1}{4}$ ounce and measure $1\frac{1}{4}$ inches, tail and all. These are easy to cast and sink quickly. Later in the season, use lighter, smaller darts.

During April, that section from Yardley to Easton is good. The shad will be moving through in great numbers. You can cast from shore to an area where the fish must pass. Boat fishing is great at the mouths of the Lumberville and Lambertville wing dams.

From mid-April to early May, the section from Easton to Delaware Water Gap comes into its own. Shad are moving upstream and many will pause to rest in the larger pools. The long swift riffle, just below the town of Portland, is a classic example where the current funnels down into a narrow trough, that's easy to reach from the Pennsylvania shore. The shad must pass through here, and if you are lucky enough to be there when the schools of shad pass through, you are in for action. While early morning and late evening seem to be best, that's not always the case. Schools of shad may pass through any time of day.

From the Gap up to Hancock, shad fishing is good from mid-May until mid-June. Spawners and migrators inhabit just about every pool. Casting to the resting places, or to the edges of the channels, from the shore is fine; from a boat, try anchoring and letting the darts drift behind the boat. Fifteen feet, or so, is plenty. The current will hold the dart in position and let it bob and weave in a lively manner. Get right along the current, or over a mid-stream resting place, and try this.

Shad fishing, while not exactly an art, takes a little "know-how." Don't expect to catch 30 or 40 of them every time out; just a few shad will make for an interesting day. Once you have had one of these sea-going speedsters tear and flip all over a pool, you will know why they are called the "poor man's tarpon"!



BAD DAY!

I go fishing for trout with my dad and muskies with my brother. One week I went both places and didn't get anything, so I wrote this poem when I went because I didn't have anything to do.

A FISHY POEM

Caught no fish
Tell you why
Water too low
Wind too high.

Left dark glasses
Brought wrong bait
Boots sprung leak
Started too late.

Too many people
Drat those boys
Too many dogs
Too much noise.

Flies wouldn't float
Lost best hooks
Owner of stream
Gave dirty look.

Could tell you more
Talk two seasons
Got no fish
Plenty of reasons.

DAVID PRETKO, 11
Shenandoah

POOR LI'L BASS!

I am writing this little story for the Leaky Boots section of the Pennsylvania Angler.

One day I was fishing in the Allegheny River near Shenley. My dad, my uncle, my brother and I were fishing for bass and walleyes. We were not having much action so I decided to use a nightcrawler for the smaller bass and the rock bass. My brother and I were fishing the same spot when the action started. I had just hooked into a small bass and was playing him out when I felt the line tighten up—like I had a snag. I let the line loose so the bass could free

himself, but when I pulled the line tight again, it felt the same as before. I decided that I would snap the line off, but when I began to pull the line, I saw an enormous walleye clinging to the bass as if it were gold! I was so excited that I didn't give the fish time to swallow the hook. The fish hung on so tight that I pulled him onto the shore—only to let him hop back into the water. I quickly put the bass back into the water and dragged the walleye, which I estimate to have been about 35 inches long, back onto the shore once again—only to lose him again! So, I put the bass down in the water once again only to come up with a catfish around 30 inches long. But I had this fish hooked. I was playing him out while my dad was getting the landing net, but I also lost this fish eventually. This wasn't the most productive day I ever had, but one of the strangest and most exciting days I ever had. Incidentally, the small bass swam away with only a few minor battle wounds!

DEAN WALDBAUM, 14
McKeesport

That's some story, Dean . . . some story!
Ed.

HELP!

To finish out a collection of fishing licenses from 1923 to 1974, I wonder if the Angler could help me obtain 1926-1927-1928 and 1929.

C. E. CRIDER
1411 23rd Street
Altoona, Pa. 16601

Anyone desiring to help Mr. Crider should write directly to him.
Ed.

NOT ALL BAD

Our rivers can't be that polluted. A 6½ pound carp was caught from our houseboat in our docking place at the Oakmont Boat service by my husband Paul. We're proud of our beautiful Allegheny River.

MRS. JUDITH MIHALEK
Pittsburgh

And so you should be, Mrs. Mihalek! We continue to get reports of some almost unbelievable Flathead Catfish catches from the Allegheny. If your husband ever hooks onto one of these, Drop Anchor!

Ed.

FROM MOUNTAIN LAKE

I enclose my renewal for 1974, along with a few snapshots. The boating pictures I took at Ansonia Bridge, where the Scouts were preparing to float Pine Creek; the fishing pictures are at Mountain Lake, near Burlington, in Bradford County. We have a cottage here and the trout were caught in April 1973, by my son, Steve, and myself.

I want to tell you that the size of the trout this year was mainly in the 12" plus size, and we appreciate the efforts of the Fish Commission in making this catch possible. One was the Palomino type, and he sure is an odd one, as compared to the stream-lined rainbow! He took a midget Dardevle, red and white spoon. The rainbows all took a gold Little Cleo spoon, small size.

The young boy holding the pickerel, was caught in a rainstorm on the lake, and he came to the cottage for shelter. He said he caught a big fish, and it was! We find this type of catch at odd times in Mountain Lake. In winter, we seem to get these large pickerel, and sometimes in the summer. It was a beautiful fish, and in good shape.

RAYMOND KAY
Elmira Heights, N. Y.

Good to hear from you, Ray—sorry we couldn't use the pictures.
Ed.

BELTZVILLE REGULARS

My family and I are regular Beltzville fishermen. My three sons, 8, 7, and 5 years old as well as my wife all learned their fishing skills there. Our complaint: We always take an extra large plastic bag with us for our waste. At the end of our day we take five minutes and clean up the surrounding area—filling the bag. If other people would chip in their extra five minutes, together we could help compensate for those "fishermen" who don't care.

This year I "plan" on getting a Citation Musky. . . I know, the first step is to *get him*. But how do I go about completing the certification?

Our compliments to the Beltzville patrolmen. I'm sure all of shore fishermen appreciate their enforcement of the "no wake" area.

TIMOTHY J. WENTZ
Coopersburg

A change in the litterbug law now calls for increased penalties: \$25.00 to \$50.00.

This should help the problem, but if we had more doing what you're doing, Tim, we'd have some beautiful, unspoiled shorelines. Keep up the good work—it may “rub off” onto someone else who sees you doing it.

Re: CITATION—First, as you stated, “get him”! Next, have your catch witnessed by a Fishing License Issuing Agent (most tackle stores qualify as such) fill out an application and mail it to us. Ed.

I NEED HELP!

I live in Philadelphia and fishing in the Philadelphia area has become lousy. All the information I have gathered about fishing in Pennsylvania is always about the Allegheny or the Susquehanna Rivers. What about the Philadelphia area? Where are the hot spots here? I am interested in bass, panfish or anything. I will appreciate any and all information you can send.

RUDOLPH SMITH
Philadelphia

Our Waterways Patrolman in Philadelphia, Frank Schilling, had a request similar to yours, Rudolph, and the following is an excerpt from his letter which will answer most of your questions.

“Fishing is available to the Philadelphia fisherman much closer than the thirty miles mentioned in your letter. A few examples would be the Wissahickon Creek, located in the Roxborough area of the city, which is stocked with trout during the months of April and May. Approximately 40,000 rainbow and brown trout were stocked with an ample number remaining during the entire trout season.

“Panfish, including largemouth bass can be taken from the Schuylkill River, Concourse Lake at 44th & Parkside Ave., League Island Lakes provide the same sport near the Navy Yard (near Broad & Pattison Ave.) in South Philadelphia.

“Another area frequently overlooked is the Pennypack and Poquessing Creeks in Northeast Philadelphia, and, for additional excitement, the Delaware River provides Striped Bass along with panfish and some largemouth bass.

“You must realize that fishing in the Philadelphia area is challenging due to the large number of persons fishing in the local streams. The more persistent fishermen—and the most skilled in the secret ways of fish—will naturally be the most successful anglers.” (Need more info? Call Frank at 215-331-3514.)

NEWCOMER

I would like to thank the Pennsylvania Fish Commission for all the help they have given me. I have just recently taken up the sport of fishing and you have supplied me with many booklets that have proven valuable to me learning everything about fishing. Thank you very much and keep up the good work for I'm sure that you are a great help to all fishermen in the state of Pennsylvania.

EDWARD LAWRENCE
McSherrystown

WHAT'S ITS NAME?

I watched “alien animals” in a show called Animal World, by Kal Kan and it showed a walking catfish. I went trout fishing this year in White Clay Creek, in Avondale. There is a church near the stream; below the church the stream widens at this point and then there is a little falls and a few big rocks in the stream. It's one of the better spots for fishing and it's stocked quite good. One day, late in the afternoon, I was fishing off one of these rocks, towards the falls, I noticed these strange fish. A trout would make it up because the falls are about five feet high but these would not get up. I imagine they were about 12 to about 18 inches long. I watched about a good hour, then I got curious and went over because the water was low and there is a cement wall with a cement walk. I got my rod and fished, but no dice—they would not bite. Being nosey, I got my net and netted one. At first I thought it was an eel. I let it go, and after seeing this show tonight, it started me to thinking . . . it didn't behave like and eel. You know, they squirm, twist and are slimy. Their head is more pointed than round and it had fins almost the length of its back. This thing was almost as thick as my waist. An eel that length is about the size of a broom handle.

I think it would be worth looking into. I can't pin the time down, but I think it was in middle of August to about middle of September that I used to go out in the afternoons.

JOSEPH PETCHKOFSKI
Woodlyn

P.S. Hope you don't think I'm some kind of a nut. Watching the show reminded me of the walking catfish. Coloring was darkish brown with blackish spots though sort of mottled with a big head like the catfish.

What puzzles me, Joe, is how thick your waist is! However, one of our biologists offers his comments. Ed.

Dear Mr. Petchkofski:

Your letter, has been forwarded to this office for reply. Each year we receive numerous inquiries about unusual fish observed or caught by anglers. It is very difficult to make a positive identification of a fish without actually seeing it.

From the description you provided, the fish you observed could be either the Eastern burbot (“*Lota lota lacustris*”) or the sea lamprey (“*Petromyzon marinus*”). It is quite possible to find both of these fishes in Pennsylvania waters. Of these two fish, the burbot would be the least common as it is usually found in deep, cold water. The burbot has a head similar to a catfish, an eel-like body with a long dorsal fin, the coloration is tan to light brown with dark brown or chocolate brown blotching, and reaches a maximum length of 25 to 30 inches.

The sea lamprey also closely fits your description and is most likely the fish you observed. It is found in many Pennsylvania streams that flow into the Delaware Bay and the Chesapeake Bay. The adult lampreys enter the clearer streams that have clean sand and gravel in which to spawn. Lampreys have been reported from streams in the White Clay Creek drainage of Pennsylvania; however, they are much smaller than the size you reported.

It is unfortunate that these reported specimens were not preserved for positive identification by members of the Fish Commission.

I hope that I have been able to satisfy your curiosity about the fishes you observed.

David W. Daniels
Aquatic Biologist

WHEN ORDERING
LITERATURE—

The increased costs in both postal rates and paper products have imposed a tremendous burden upon our budget. Therefore, we are requesting that readers include 25¢ (to cover postage and handling) when sending for literature, additional copies of the Angler, etc. In remitting, you may use postage stamps. NOTE: This does not apply to monies remitted for your Angler subscription.

Taking A Closer Look

BY TOM FEGELY

PYRAMID IN A POND

A pond is generally distinguished from a lake by its smaller size, uniform temperature and shallow waters. To come up with a more exacting definition would not be feasible since there is such a great variety of ponds throughout North America that a single description could not possibly fit them all. The abundant plant and animal life of a pond is obvious to anyone taking the time for a closer look. The way these living creatures depend on one another for their daily needs, however, is not quite as obvious.

Take for example the classic bass-bluegill relationship in a small pond. The bluegills feed on invertebrates and other small animal life while the bass prey upon the bluegills, keeping their populations in check. Improper fishing and harvesting, however, may drastically upset the delicate relationship of the two species. Being more highly prized, the bass are typically removed in great numbers until they can no longer keep the bluegills in balance. They now multiply to the point where there is not enough food to go around and they prevent the bass from reproducing by eating their spawn. The final result is a pond full of stunted bluegills, virtually empty of large fish of either species. The answer seems to lie in retaining all fish caught without regard to size or species. This may seem ecologically unsound unless one understands the concept of "biomass".

Biomass can be defined as "the total amount of plants and animals in a given environment." The term may also be limited to designate the "total amount (by weight) of a single species."

The best way to comprehend biomass is to study a "pond pyramid" as illustrated in this diagram ➡

The *producers* are the basis for the total animal populations of the rest of the pond. Producers include all the green plants which can convert the sun's energy into usable food. Although cattails, water lilies, pickerel weeds and the submerged pond weeds are the most conspicuous plants, it is the microscopic plankton (drifting one-celled plants, especially algae) that is the basic foodstuff on which all of the pond's animals in some way depend.

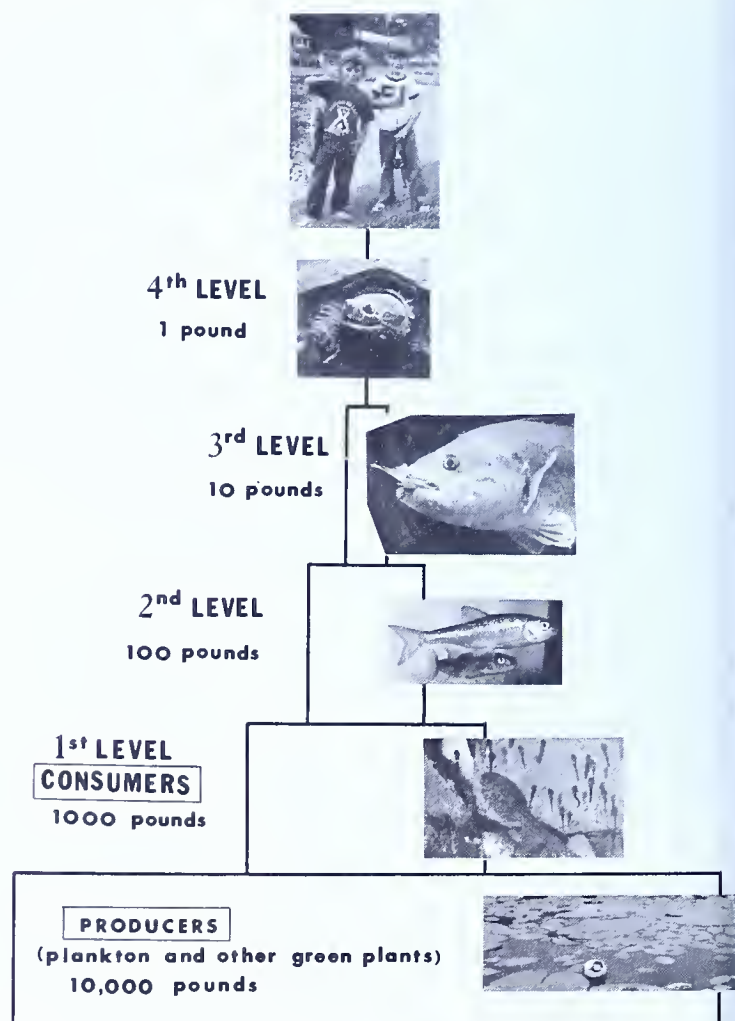
Animals that feed on plants, such as tadpoles, Daphnia, copepods, snails and insects, are known as First Level "consumers"; those that capture and devour the plant eaters are labeled Second-, Third- or

Fourth-level Consumers, depending on how far removed they are from the producers. This does not mean that an animal such as a snapper feeds only on those creatures in the level below it since it may make feast of practically anything in the pond, including water snakes or birds in its own level.

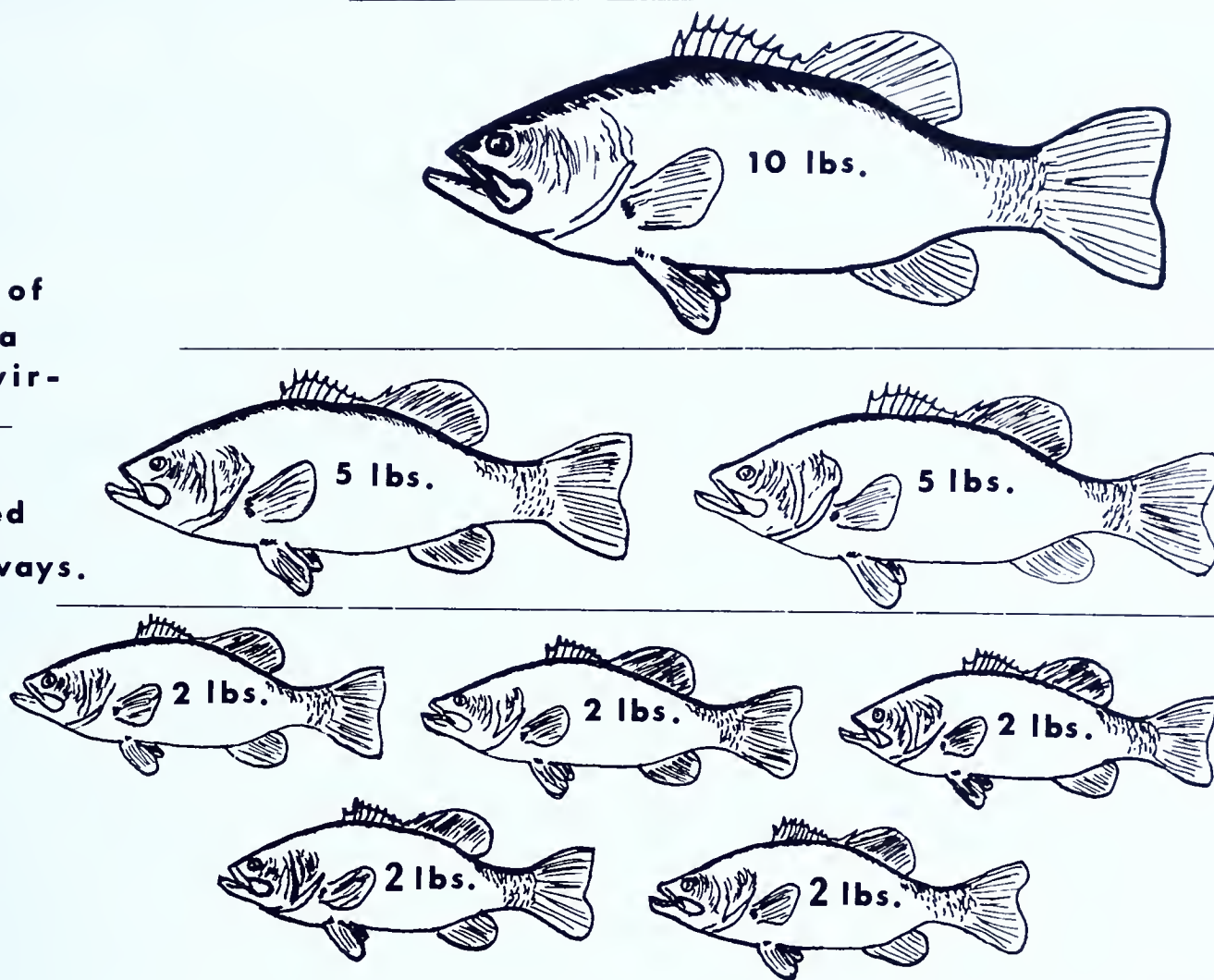
The transfer of food energy from one level to another results in an energy loss at each step. For example, 10,000 pounds of plants must be consumed by the *first-level* consumers to produce just 1,000 pounds of weight or biomass. Likewise, bluegills or minnows at the *second-level*, upon consuming 1,000 pounds of tadpoles, copepods, etc., will have a growth in biomass of only 100 pounds—and so on up the pyramid. As each level feeds and is fed upon, approximately 10% of the food energy consumed is used for growth (of populations or individual weights) and 90% is used in the processes of respiration, movement, heartbeat, digestion, reproduction and other life functions.

The relationship of a pond's producers and consumers is usually expressed as a "pyramid of numbers" because there are many more *producers* than *first-level consumers*; more *first-level consumers* than *second-level consumers*; etc., etc. It may take 100,000 pounds of producer plants to support a 10 pound snapping turtle or heron; quite an energy loss.

Small pond studies show that anywhere from 15 to 50 pounds of bass and/or bluegills can be taken annually from a one acre pond. The total biomass removed each season can be distributed in many



10 pounds of bass — in a given environment — could be distributed in many ways.



ways as shown in the illustration above.

Ten pounds of bass biomass could be made up of one ten-pounder, two five-pounders or five two-pounders or in any other combination totaling ten pounds. The same theory would hold true for bluegills, turtles or other foods that a pond could produce.

Overpopulation of a pond by stunted bluegills is largely due to underfishing for them and overfishing for bass. As bluegills are removed, competition for food is lessened and their individual weights will increase proportionately.

Although biomass is concerned with the total weight of fish in a pond at a particular time, productivity indicates the weight of fish produced over a period of time. Thus a pond not fished may have a large biomass of bass and bluegills and another, heavily fished, may have a smaller biomass but a much higher production over a summer season. Since conservation is thought of as "the wise use of our natural resources," harvesting pond fish without regard to size or species tends to maintain the best balance while still providing recreation and food.

With farm ponds and backyard impoundments becoming more and more common, it is necessary for an owner to understand the relatively simple concepts of "biomass" and "productivity." Scientific studies show that supplemental feeding can substan-

tially increase production in a pond. According to *Farm Pond Harvest* magazine, by the supplemental feeding of trout, catfish, bass and bluegills, a pond can be made to produce much more than its basic producers would allow.

Studies are even being carried out in large lakes to determine whether or not feeding is practical there. It's been determined, for example, that bluegills establish a "home base" and individuals range about 67 yards from that base. Once a feeding routine is established, the same fish return day after day to the same location. This discovery may even make it practical someday for people who own boat docks or lakefront properties to feed the fish.

(For more information on supplemental feeding of fish write to: *Farm Pond Harvest*, 372 S. East Ave., Box 8840, Kankakee, Illinois 60901.)

A mismanaged pond, unsuitable for both food and recreation, can be made productive with a little knowledge of pond ecology. Perhaps the pinpointing and consequent management of such ponds throughout Pennsylvania could open some new avenues for sportsman-farmer relationships. Fish and game clubs always seem to be looking for worthwhile projects. It would seem that establishing some close-to-home fishing spots is an investment that will draw interest well into the future.



Senior citizens can enjoy themselves fishing during May's mild weather.
"Let's see now, at about \$1.49 a pound, that should come to about . . ."



Fuel, Food & Fishing Fun

*Cheer up! There's
 plenty of FUN left
 despite shortages
 of everything else!*

There's little question that FUEL is "hard-to-come-by." And, when you can get it, the price makes you wonder how much of the paycheck will be left for FOOD!

Fortunately, America's Number One outdoor recreation, FISHING, is one of the very few "fun things" in life that can pay big dividends—MEAT ON THE TABLE!

Forming car pools for the day's fishing fun will bring each angler's fuel bill down to mere pennies—but—believe it or not, that's just incidental to the extra enjoyment you'll have fishing with a gang.

MAY is a good month to start. Muskellunge, walleyes, northern pike, and pickerel are coming in on May 4th. In addition, you'll have channel cats, bullheads, plus all the panfish in the book in a biting mood.

If you haven't already done so, get your FISHING LICENSE now! It's your ticket to a fun-filled, inexpensive and rewarding summer—perhaps no more than a gallon of gas from home—right in your own backyard!



During the month of May, Pennsylvania's trout lakes will still have an abundant supply of trout left over from last month's opener.

A pair of walleyes will make a meal fit for a king!

Oh boy! Won't Mom be happy to see this stringerful of tasty catfish?





*Northwestern
Pennsylvanians
have fine fishing
all year long at*

LAKE ERIE

*by Mike Cuneo
photos: Joe Comstock*

← *Paul Evanoff leans back to haul in a hefty walleye he took while trolling in Lake Erie, just off Trout Run—a coho hotspot in fall.*

There's a fish for all seasons in Lake Erie, keeping anglers happy from the start of the new year when the ice is thick until the cold winds hit the big body of water during the November frost.

It's not the same species of prey the year 'round, but there's one or another game fish out there to be caught throughout the year.

Traditionally, the angling season gets underway with the rodbender donning just about all the clothes he can find, stuffing his feet into a pair of insulated boots and heading out onto the ice to fish for some of the perch and panfish hiding out under the cover of ice.

After grabbing his bait, fish bucket, hand warmer, feet warmer and portable furnace, the well-bundled fisherman then grabs his shelter and treads his way across the January covering on Presque Isle Bay to sit and fish while sipping from his bottle of body comforter.

Most anglers around the Erie area aren't as sturdy as the ice fishermen and not too many guys will brave the cold wind and the chilly air to go fishing.

The great majority of warm-blooded anglers will let their fishing hardware rest in the closet until the opening of trout season in April when the days are a little brighter. But there's plenty of fishing to be done before the trout are awake in the streams.

February will give the anglers some more good ice fishing and there will even be some diehards putting their hooks and lines through the ice in March—if Jack Frost is still around.

Once the ice clears from the bay, fishermen have their signal to move into the ponds on the Peninsula. At this time the bass, crappies, muskies and north-erns will leave their winter homes and head for the sandy shallows of the lagoons to begin their spawning preparations.

The crappies can be found in nearly every one of the lagoons on Presque Isle and they're "suckers" for the big streamers and jigs as well as minnows.

There aren't any weeds in the ponds at this early date either, giving the angler the added thrill of being able to fish without his most consistent catch being a pile of weeds knotted to the treble hooks of his plugs and spinners.

Steelhead Trout, which live in abundance in Lake Erie, are also on the move after the first break in the ice, navigating through the lake in search of a stream in which they can deposit their eggs.

Along with the migrating trout comes the migrating angler who either wades out into the cold water in chest-high waders or sits comfortably in a boat at the mouth of one of Lake Erie's tributary streams. After choosing one of the many creeks which empty into the lake, the angler will cast spoons, spinners, worms and salmon eggs into the water in an attempt to lure one of the finny giants from his lair. The lake-run rainbows in the Erie area easily average 20 inches and that's a lot of trout!

continued on next page



Erie's catfish king, James Tamplin, above, with a night's catch—about forty-five pounds worth of fine table fare.

Anthony Abromavich, below, found the walleyes cooperative at Lake Erie. Largest was 27½"—weighed 8¾ lbs.





Waterways Patrolman Norm Ely admires youngster's catch of walleyes—"natives" call them "yellow pike."

Mrs. Rudy Orman, below, displays just a few of hundreds of bass which she and her husband have taken from Erie.



Smelt, too, now fill Erie's tributary streams, and these silvery taste treats are dipped by the hundreds.

After the opening day of trout season, many others will join the early birds in both the streams and at the mouths of the tributaries in hopes of hooking into one of these bragging fish.

Musky fishermen will begin their trolling efforts early in May grinding their way across Presque Isle Bay at the head of the Peninsula, covering the area from the Erie Yacht Club to Sturgeon Bay in hopes of latching onto a nice 'lunge to show off to their friends.

May also brings the perch and walleye fishermen into the bay waters. The perch anglers will head for the shallow areas of the bay with "minnies," grubs, and worms in hopes of bringing home a meal of these delicious panfish.

Quite a few bragging walleyes in the 25-inch range are caught in the spring and early summer, too.

The lake becomes the hotspot once June's warmth begins to start the adrenalin flowing in the hearts of the area perch and bass anglers.

The perch can be caught in many locations during the month and bass abound in front of the lake's tributaries and around the "cribs" off the mouth of Six Mile Creek. The bass are busy planning families and protecting their nests from invading plugs, spinners and live bait thrown their way, causing a bit of commotion with the anglers trying for them.

In July, the walleyes start to hit spinners, fly, and nightcrawler rigs trailed behind little boats which are moving along at a snail's pace. Those that engulf the hooks usually average 20 inches . . . at the minimum.

Throughout the summer months, the "Yellow Pike" (as the walleye is known locally) are the fish that everyone seems to be trying for. And, until the coho move near the shore in mid-September, the walleye is the most sought after prize.

Some of the hotter areas for walleyes are the point located between Shorewood and Orchard Beach on the eastern side of Erie, the waters just a fifteen minute boat ride from the Public Dock in downtown Erie, and in the waters around Trout Run and Godfrey Run, on the western side of town.

The walleyes are active well into the fall of the year. But when the coho start biting, most anglers forget there is any other species of fish besides salmon, creating an all-day traffic jam on the lake as they gather with high hopes of getting a coho or chinook on the line.

The big chinooks top ten pounds, but even the small coho salmon are big four pounders, reason enough why the anglers are so crazy about them. The coho are bragging fish whether they're exceptionally big or not. They always give the rodbender a good story to tell as they sit at the local pub after fishing.

The coho are in the lake until mid-December when the final few stragglers rush into the streams to avoid

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"This is the Captain Speaking"

by CAPT. C. E. LEISING, USCG (Ret)
Director,
Bureau of Waterways

Captain Leising is a 1938 graduate of the U.S. Coast Guard Academy and in 1946 received an M.S. Degree in Naval Architecture and Marine Engineering from M.I.T. After 30 years of active duty afloat and ashore in the Atlantic, Pacific, and on the Great Lakes, Captain Leising retired in 1968, joining the staff of the Pennsylvania Fish Commission in 1969. He represents Pennsylvania in the National Association of State Boating Law Administrators, whose purpose is to foster interstate and federal/state cooperation and coordination in resolving boating problems.

"*This is the Captain speaking.*" Anyone who has served aboard a Navy or Coast Guard ship at sea knows that the words which then followed were intended to inform all hands of the assigned mission. The policies behind the planning were explained to show how the various programs were an integrated part of the "big picture." These announcements promoted understanding and cooperation by all for the ultimate safety and benefit of everyone. With everyone better understanding what was being attempted—and *why*—the Captain knew that each was more likely to do his share in making the plan work and less likely to be diverted by bum scuttlebutt that thrives on confusion and misunderstanding.

Although somewhat removed from the high seas, Pennsylvania boaters are nonetheless subjected to this same confusion and misunderstanding which is sometimes prompted by "sinister forces" that have their own reasons for not wanting our boating programs to succeed. The purpose of this column, then, is indicated in its title—we plan to present to the boating public the straight facts—where we are—where we're going. One point I think will become

clear, although most of you already know it—there isn't anything that happens on, in, or to recreational waters of the Commonwealth that is not of concern to the Fish Commission.

With one new regulation followed soon by another, some Federal and some State (which sometimes appear to be conflicting); talk about such things as operator licensing; a new federal excise tax on boats, motors, and accessories; changes in boat registrations, and what will be required in the way of installed heads (to landlubbers, those are marine toilets)—even which Boating Safety Course to take—it is easy to understand why some are confused and wondering whether all the recreational fun might not soon be taken out of recreation boating. In future columns, I hope to explain what the Pennsylvania Fish Commission staff thinks on such matters and what they're doing and planning to insure that this never happens here!

The accomplishments of which I'll write, which have been of significant benefit to boaters, are the result of the efforts of many, both within and without the Fish Commission, working over the years to give Pennsylvania a complete boating program that is the envy of nearly every State Boating Law Administrator in the nation.

The many good features of the Motor Boat Law (Act No. 400) which really put us into the business of cooperating with other states under provisions of the Federal Boating Act of 1958, the so-called Marine Fuel Tax Law (Act No. 65) of 15 July, 1969, and the recent amendments to Act No. 400, contained in Act No. 93 signed into law on 18 October, 1973 to bring us into conformance with the Federal Boat Safety Act of 1971, would not be on the books to distinguish Pennsylvania as a leader in boating legislation if our boating public, our legislators, our Governors (each of these three Acts was signed by a different one: Scranton, Shafer, and Shapp) did not consider the Fish Commission fully competent to carry out their intent in an efficient manner. That high reputation accorded the Commission by the public and officials alike is our most cherished possession and is guarded jealously. It has been earned by the dedicated service of those Commissioners, staff and employees throughout the organization past and present.

Most of our boating public—and by this I include anyone who uses a boat for any purpose—would be unlikely to know how really fortunate we are with a Governor-appointed Boating Advisory Board, a Boating Fund (to which all registration fees, fines, penalties, and the state tax on marine fuel is credited *for use only to the benefit of the boating program*) and an organization ready, willing and able to serve their needs and constantly alert to improve the opportunities for the most people to enjoy the water-oriented activities in the safest, most compatible manner possible. Future columns will give a better understanding of how this is accomplished. Your suggestions will always be welcomed.

**Tired of the high price of meat?
Try stretching your dollars with:**

Quick & Easy Panfish

by John Weiss

My friend, Bill Gressard, goes nuts over panfishing. And using a light flyrod with an assortment of wet flies, small rubber bugs and other baits usually enables him to take his limit with little difficulty. Sometimes, however, he fishes just for fun and has more than once impressed a guest by catching and releasing over 200 panfish a day. On other outings, he and three or four friends may fish for limits of bluegills (and other panfish) and treat their combined families to a fish fry, each angler donating his limit to the cause.

Several limits of bluegills, sunfish, or other panfish—and cleaning and preparing them for the table—would give any chef, however devoted, an acute case of the vapors! Unless you have a special technique, it can be long hard work. Yet Bill Gressard does it many times each year. The quick and easy method he uses will likewise work for other anglers who may not enjoy panfishing simply because of the lengthy effort required to put them on the table.

Bill's method works equally well on perch, crappies, rockbass, bluegills, sunfish, and other panfish in this size category. After your first limit of 50 fish you should be able to clean about two per minute. Bill can fillet three per minute! And watching his hands at work is like witnessing the artful moves of a master surgeon.

Having prepared several pounds of the mini-fillets, there are many ways you can ready them for the table.

Gressard's favorite recipe is "Bluegill Fillets in Beer Batter." I have always "pushed" beer-batter recipes because they are ideally suited to a number of fish species whose characteristic flavor is ever so subtle. There is indeed a distinct difference in taste between, for example, a bluegill, sunfish, and rockbass. And with a light beer batter you'll be able to savor that distinctiveness. A beer batter will also add renewed flair to other species such as crappie, bass and other favorites. You can't taste the beer once the cooking process has been completed, but the alcohol's effervescence remains and makes for a light, airy batter. It surely does justice to bluegills—the king of all panfish.

BEER BATTER FOR BLUEGILLS

- 1 cup pancake mix
- 1 egg
- 1 teaspoon salt
- 1 cup of beer (more if too thick)

Thoroughly mix ingredients. Dip fish into batter singly, drain off excess, and lower one piece at a time into bubbly hot cooking oil (360-degrees). Deep-fry until golden brown (about two-minutes). Drip briefly and then place on absorbent paper. This recipe makes sufficient batter for about 1½-pounds of fillets and three hungry anglers. If you choose, you may wish to accompany this dish with a southern favorite—hush puppies.

Another favorite around the Gressard homestead is "Panfish Cocktail," an ideal recipe for making use of large numbers of bluegills, crappies or other panfish that have been prepared by the quick and easy method.

Simply place the mini-fillets into a double-boiled (or clam steamer) and steam until the flesh is firm (about one minute). Chill overnight in your refrigerator, then serve the same as you would crab or shrimp by dipping into a hot sauce commonly used for seafood. Or, you can shred the chilled meat with forks and mix it into a robust chef's salad.

Other recipes for use with crappies and other panfish can be found in most outdoor cookbooks. In any case here's an ideal way to add a unique dimension to your panfishing adventures—a way in which you can eliminate the troublesome cleaning process and enjoy the eating as much as the catching.

If you're like Bill Gressard, you may seldom fish for anything again but panfish.

Editor's Note: Pennsylvania's rivers, streams, and lakes abound in panfish and this is the time of year to catch them. The liberal daily limit (50) won't hurt the population. It's really a good practice to thin them out. With the price of meat at an all-time high, you'll add protein to the family diet—and have a ball doing so!

Photos show how it's done →

1. With a fillet knife cut down to but not through the backbone.
2. Insert the tip of the knife near the head region and work it down the side of the dorsal fin, insuring that the knife does not cut deeper than the rib cage.
3. As soon as you reach the rear of the dorsal fin, push the knife all the way through to the ventral side and with the knife edge sliding over the backbone continue to the tail region.
4. With the knife tip riding over the upper edge of the rib cage, follow the lateral line, gradually lowering the cut until it meets the ventral area where you pushed the knife all the way through. Now, the fillet should literally "pop" right out.
5. Remove the skin from the fillet the same as when filleting larger fish, by holding the tail-end section firmly and sliding the blade between the skin and the fillet.
6. With a bit of practice you should be able to easily remove two fillets from each panfish with no wasted meat and be able to average between two and three fish cleaned per minute.

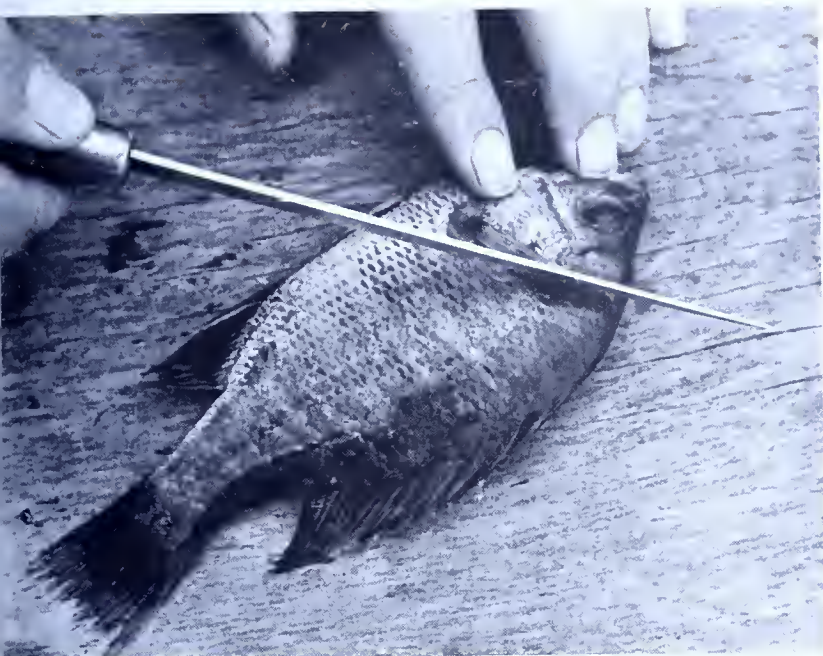


Photo 1

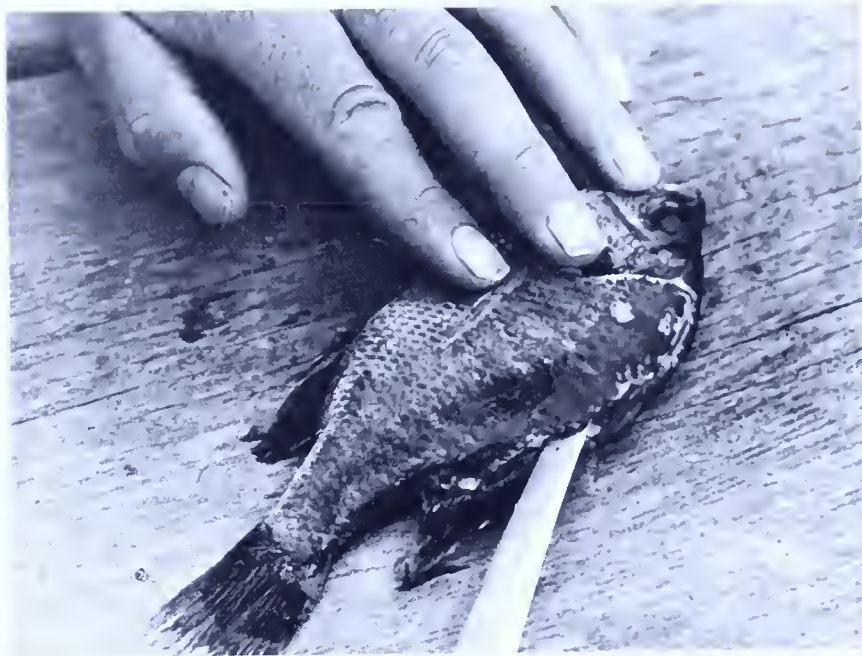


Photo 2



Photo 3

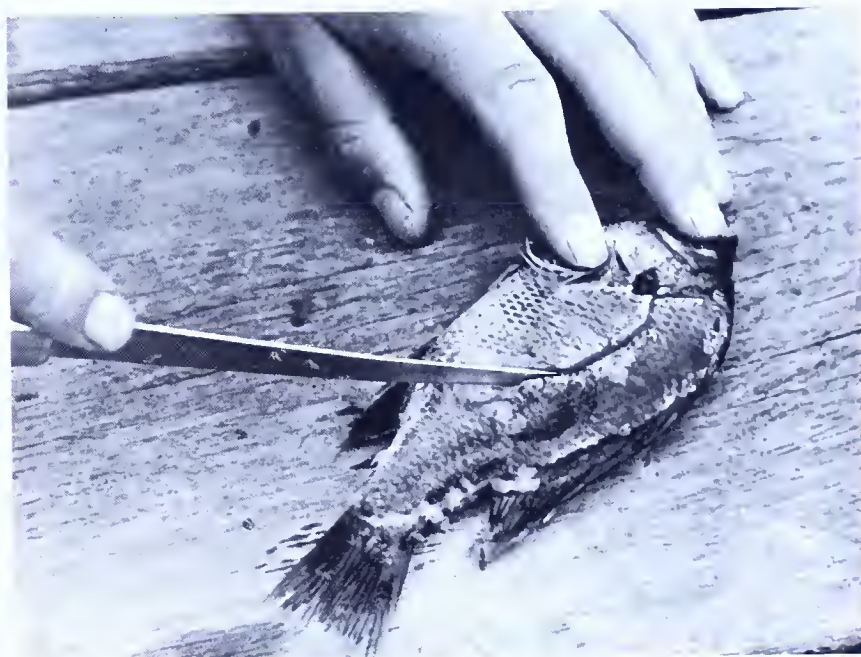


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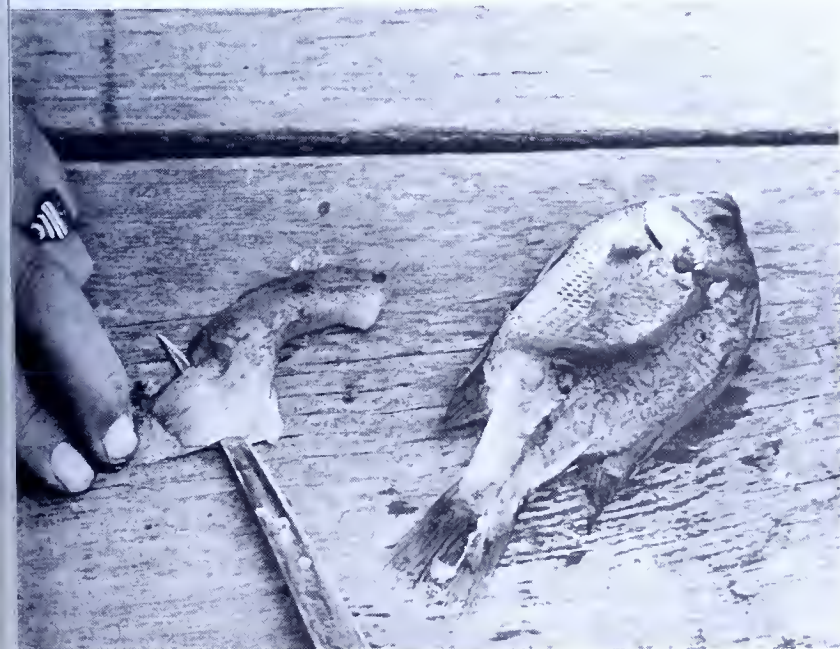


Photo 5

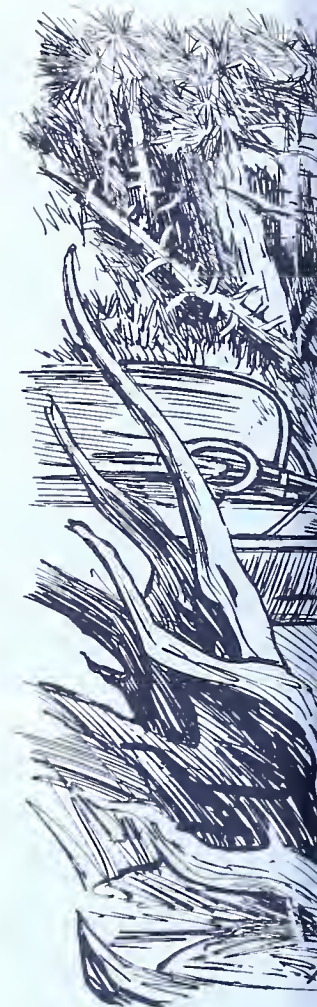


Photo 6

*"we spent a hilarious two hours
catching frogs with our bare
hands . . . we almost forgot
we had come to catch bass!"*

Getting Your Own Bait CAN BE FUN!

by LEO A. BRESSLER



Those who fish with artificial baits often speak in fond, almost reverential, terms of their favorite flies, plugs, and other lures. Flytiers will show you their latest creations with as much pride as a painter unveiling a masterpiece. Such dry flies as the Adams, Royal Coachman, and Cahill are regarded almost as if they had mystical powers.

But who has ever paid tribute to a nightcrawler that has given its squirming best to attract a reluctant old brown trout? Who has ever praised the seductive wriggings of a stone catfish for its efforts to induce a grandsire bass to end its hunger strike? The truth is that, to most fishermen, natural baits are merely a means to an end. A worm is just a worm, a minnow just a minnow, a frog just a frog—something to be impaled on a hook. Bait is something most fishermen secure in the easiest, quickest way and casually discard when it has, or has not, served its purpose.

I say "most fishermen"—not all. I once knew an old bait fisherman who would spend hours digging a canful of worms. He would select certain worms and discard others as carefully as if he were picking

a few genuine pearls from a tray of synthetic ones. When he spaded up a "manure worm," the small, vile smelling kind that exudes a sickly yellow fluid, he would cast it aside in disgust. But when he turned up a firm blackhead worm, he would place it tenderly in his moss filled can. I am certain that he enjoyed the same satisfaction and pride in gathering his worms as a fly fisherman does in selecting his flies. He knew that the right size and type of bait would determine the success of his fishing trip.

I am certain, also, that he got a lot of fun and satisfaction out of digging his own bait. And this is the point I wish to make: *getting bait can be a source of enjoyment* rather than a mere chore. I recall one afternoon on a Canadian lake after my partner and I had discovered that the bass were interested only in a small green frog. We beached our boat in a sandy cove and spent a hilarious two hours catching frogs with our bare hands, splashing through the shallow water along the shore like two kids, lunging madly at frogs that met our standards. We became so engrossed in catching frogs that we almost forgot that we had come to catch bass.



In addition to this isolated experience with frogs, there are at least two other bait-catching procedures that can be fun: prowling lawns for nightcrawlers, and "bobbing" for stone catfish.

Catching nightcrawlers, an activity that takes place at night with the aid of a flashlight, is no great feat after a heavy rain, when the worms have crawled completely out of their holes. They lie stretched out on top of the grass, just waiting to be picked up. But when the ground is dry, catching crawlers can be a difficult job. A person who has never tried the process will find it a challenging, if not frustrating, business.

In the first place, at such times the worms have generally crawled only part way out of their holes, so that only an inch or two of worm protrudes. If the grass is not cut very close, it takes a sharp eye to detect the slight reflection of light from the moist worm. Secondly, nightcrawlers have the capacity of disappearing into their holes like a will-o'-the-wisp. Now you see them, now you don't. This may be attributed to their acute sensitivity to light and the slightest vibration in the ground. A piece of red cellophane pasted over the flashlight lens, and setting one's feet down softly, will reduce the risk of disturbing the worms.

A typical nightcrawler hunt will proceed something like this: The "hunter" moves slowly over the lawn in a crouched position, like some predatory animal stalking its prey. His one hand directs the flashlight beam toward the ground; the other hand is slightly extended, with the thumb and forefinger

in the "ready" position for grasping the hapless worms. Suddenly the hunter halts, as his eye catches the slight gleam of light from a venturesome crawler. He slowly stoops, carefully extends his arm until it is within grasping distance of the worm, and then makes what he thinks is a lightning-fast grab for his quarry. As often as not, if he is a beginner, his hand will come up with a bunch of grass. Or, if he is lucky, he will have a nightcrawler firmly pinned between thumb and forefinger.

Here is where the fun begins. Three-fourths of the worm may be firmly entrenched underground. The trick is to get the whole worm out without injuring it. A quick jerk, or too much sustained pulling, will leave the hunter with an inch or two of useless worm. One can never be sure of success, but by taking advantage of the worm's elasticity and alternately stretching it and then allowing it to contract, one can often wear the crawler down and pull it out unscathed.

This process of catching nightcrawlers is not for people with sore backs or stiff knees. It's a tiring business, something like picking potatoes. But it can be fun, especially if two or more persons are hunting together and trying to outdo one another. I remember one night when two friends and I spent three hours on a golf course trying to catch enough crawlers for a week's fishing. We were young enough to be competitive, and the catching soon became more important than the crawlers themselves. The peaceful night silence was constantly broken by various epithets and

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Getting Your Own Bait

CAN BE FUN!

continued from preceding page

"a quick jerk or too much sustained pulling will leave the hunter with an inch or two of useless worm."



exclamations of disgust or self-congratulations as we informed one another of each nightcrawler caught, lost, or torn. The fellow who finally caught the most worms kept reminding us of the fact throughout our entire fishing trip.

There are, of course, easier ways to get nightcrawlers—the bait shop, electrical devices, chemicals—but none provides any fun. And there is a certain satisfaction in catching fish with crawlers one has captured himself . . . *the hard way!*

Securing a batch of stone catfish is considerably harder than getting nightcrawlers, but it is also more interesting. The stone catfish is one of the best baits for bass in the Juniata, Susquehanna, and some of the streams that flow into these rivers. "Stony" is a miniature member of the Nematognathi family, differing from his larger brothers in that he seldom grows longer than six inches, has a yellowish-brown color, and sports a slightly elongated feathery tail. What he lacks in size he compensates for by his toughness. Unlike other baitfish, he will survive several hours of casting and still have enough energy left to attract a bass. He has a sinuous body and his motion is a cross between the slithering glide of a snake and the eccentric dartings of a tadpole. He wriggles, shimmies, twists, and turns. If anything will move an overfed bass to strike, it is the maddening tactics of a stone catfish.

Unfortunately (or perhaps fortunately) few fishermen use the stone catfish as bait, probably because this is not an easy bait to secure. He is a nocturnal prowler of warm, rocky, slow-moving streams, and the only way to catch him is by persistent hard work.

There are two methods of catching stone catfish, both of which are most successful at night. If the water is clear, one can use a dip net bent into a half-moon shape and try to net them. This is done by wading into the stream, turning over large rocks with one's foot, and then "kicking" or chasing the fish into the net. This method provides sport, but it is a slow, uncertain method of getting bait.

The other method, also most successful at night, is more effective when the water is muddy. This method is called "bobbing"—perhaps because it vaguely resembles the manipulation of a plumb bob. The equipment consists of a "bob," a dip net, or the round lid of a cheese box, and a floating minnow bucket. The bob is made by threading a fairly large needle with three or four feet of strong thread and tying a small sinker to the end of the thread. The needle is then used to thread ten or a dozen medium-sized nightcrawlers on the bob, the needle being passed several times through the middle of the crawlers. As each crawler is put on the bob, it is drawn down to the sinker. The ultimate result is a bunch of nightcrawlers that looks like an octopus with too many arms.

The next step is to find a likely spot in the stream where the water is approximately two feet deep and not moving too swiftly. The bunch of crawlers is lowered to the bottom of the stream and slowly jigged up and down. If one is in luck, he will shortly feel a series of sharp tugs on the thread, which is wrapped on his index finger. Now is the time to lift the bob slowly and steadily out of the water and swing it quickly over the net or cheese-box lid. If the timing has been right and the handling of the bob steady and true, a stone catfish which has been hanging on to the end of a crawler like a bulldog will drop into net or lid. Occasionally, two or three fish may be caught at the same time.

It will take the novice some time to catch on to the art of bobbing. At first he will lift his bob too soon, or too late, or too fast, or he will fail to swing the bob directly over the net and drop the fish back into the stream. His back, legs, and arms will begin to ache after an hour or two of standing in the water, manipulating his rig, wading from spot to spot in search of a productive area. He will slap at mosquitoes, if he can get a hand free, and try to keep the gnats attracted by his light from getting into his nose, mouth and ears.

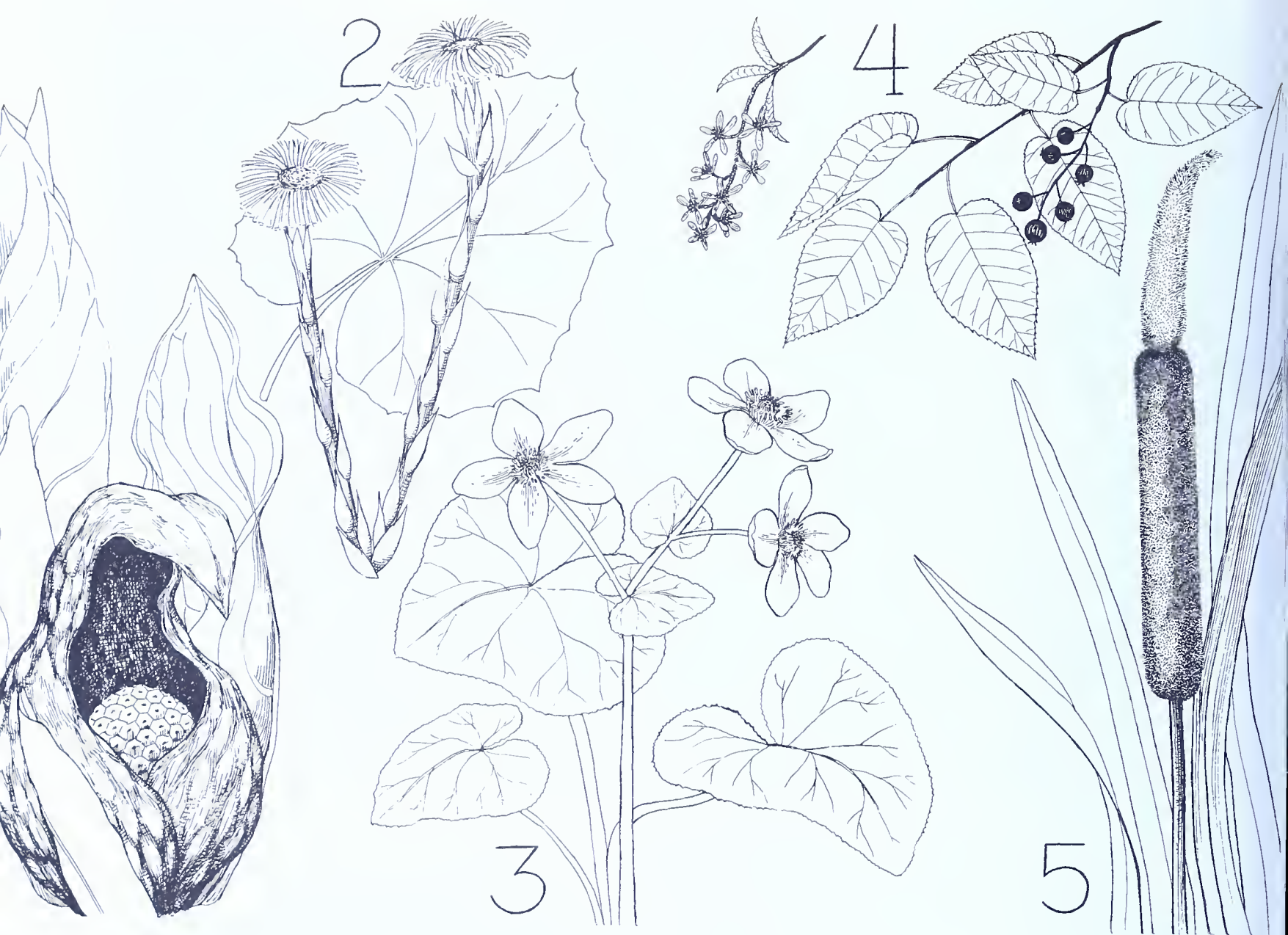
Even the experienced bobber suffers frustrations and annoyances. Crayfish will snip off the nightcrawlers, an occasional snake will swim too close for comfort, and he will probably get a painful puncture

or two from the needle-sharp spines of the stone catfish. Bobbing is definitely for the young in body and at heart—especially at heart. But it is fun. It is a primitive kind of fishing without hooks in which knowledge of the streams and skill are essential for success. Once one gets the hang of it, it offers much of the enjoyment that all fishing provides. Depending upon the person's temperament and sensitivity, the fact that bobbing is done at night provides him with an extra dimension of pleasure. Water, vegetation, living things—all are somewhat transformed and given new interest by the air of mystery that accompanies darkness. Finally, there is the real satisfaction of having caught one's own bait—fresh, lively bait—a fact which greatly increases one's anticipation of the bass fishing to come.

What has been said about catching nightcrawlers and stone catfish applies, in some degree, to all natural baits. Securing one's own bait can provide fun, excitement, and satisfaction. I subscribe to the principle that the more a person is involved in the whole process of fishing, from getting his own bait to filleting his own fish, the greater the dividends of the sport. I, like most fishermen, have at times gotten my nightcrawlers in a paper container at a bait shop, but I have never done so without a vague feeling that I was an unfortunate victim of the age of pre-packaging and substitutes and that I was not a "complete angler."

"a stone catfish which has been hanging on to the end of a crawler like a bulldog will drop into net or lid."





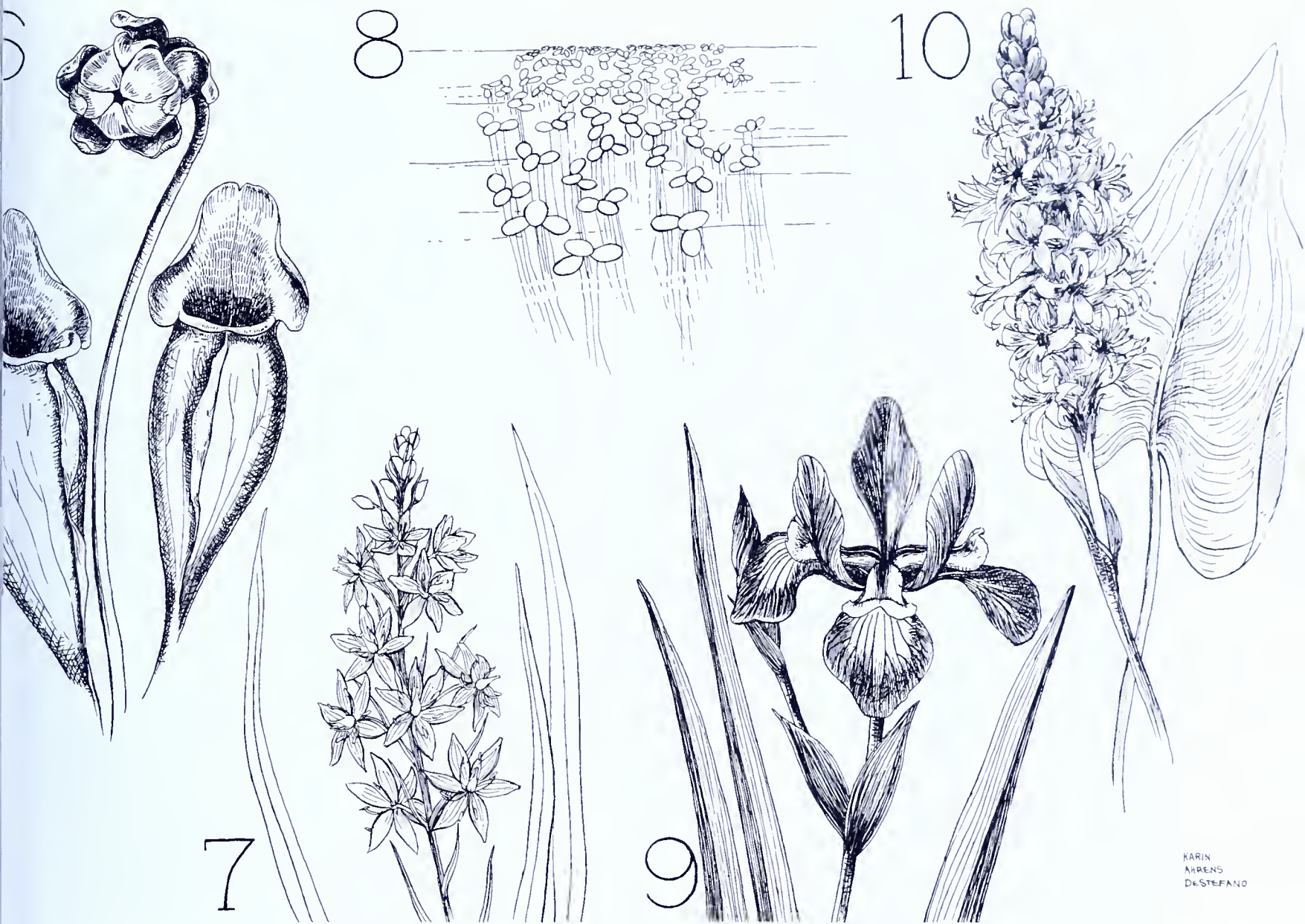
Plants Anglers Meet

Part II "The Good Guys"

by Carsten Ahrens

A fishing trip into Penn's woods and along Penn's waterways is seldom concerned 100% with fishing. There's so much of interest that grows along the path that twists through the flowers, shrubs, vines, and trees that clothe a river or lake side. And vegetation does not stop at a stream's margin. Many plants are more or less aquatic and help make life in water possible for fish by providing oxygen, shade and shelter, and, sometimes, even food. Here are some plants that require an abundance of water and are found in habitats actually frequented by fish or areas close by.

1. SKUNK CABBAGE (*Symplocarpus foetidus*) is one of the first harbingers of spring, although not very fresh and vernal in smell. As early as late February, in protected spots, the plant makes its rounded, squatty appearance. It has a shell-like, mottled, purplish-brown spathe that forms a canopy over the club-like spadix which bears the small flowers. After flowering time, broad leaves, two or more feet long, will unfold in the sun. It has a perennial root-stalk which I found seemed to be endless once when I tried to dig out a most colorful oldtimer. I gave up, finally, very muddy and smelling much like . . . skunk cabbage!



2. COLTSFOOT (*Tussilago farfara*) is another of the early flowers to welcome spring. Why it's called "coltsfoot" is a mystery. By actual count, 9 out of every 10 anglers I've questioned guess it's a dandelion. It's like a dandelion in that it has a head of yellow rays but unlike a dandelion it has a solid, rough, scaly stem that grows out of a bare, ropy root-stock. There is no dandelion rosette of narrow, notched leaves; the coltsfoot's broad leaves won't appear until after the flowers are gone. There's no milky sap, no globe of graceful parachutes to carry away the seeds.

Coltsfoots (yes, that's right) were introduced from Europe by the early settlers and have spread north to Nova Scotia, throughout our state, and west to Minnesota.

3. MARSH MARIGOLD or COWSLIP (*Caltha palustris*), although a most ornamental, early spring flower, is neither a marigold nor a cowslip; rather it is a handsome member of the buttercup family. It grows as high as two feet on its succulent, hollow stalk, and with its large, rounded, glossy leaves and big gleaming, gold flowers, the plant is a most welcome sight in an otherwise dour April marshland.

Marsh marigolds and red-wing blackbirds appear in Pennsylvania each spring together. It also grows in England where it is called "king's cup." The early shoots and leaves can be prepared as food as one would spinach, but I enjoy mine much more unpicked and unstewed.

4. SHADBUSH (*Amelanchier* sp.) is a shrub or small tree that every early spring angler should get acquainted with. Usually it blooms before its leaves appear. The natives are apt to call it "Sarvice," serviceberry, or Juneberry; and, if it should be one of the species whose ripe, sweet, dark purple, and juicy fruit just melt in one's mouth, it might rightfully be called a "sugarplum tree." . . . even though it is more closely related to the apple, and a small one at that—the fruit less than ½ inch across.

The tree in April really stands out on a dull and winterish mountainside for it may be loaded with terminal clusters of white, rather wispy, 5-petaled flowers. The genus *Amelanchier* is a complex one, and many species bear dry, tasteless fruit. But if you can find the species called the sugarplum tree, as I once did, and if your wife makes you a sugarplum

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Plants Anglers Meet

pie, as mine once did . . . it's a gustatory thrill you'll tell the grandchildren about!

5. CATTAILS (*Typha latifolia* . . . narrow leaves) (*Typha angustifolia* . . . broad leaves) edge waterways not only in our state but around the world wherever there is little or no current. The sturdy plants often grow to eight feet and make such dense and sturdy stands it is difficult to force one's way through them. The two species are easily identified by the width of their leaves. Both carry their flowers in round, plushy "tails" atop their stiff, unjointed stalks. "Like weiners on sticks," my youngsters used to say. Actually, the upper (staminate or male) part of the cattail produces a cloud of pollen that showers down over the lower (pistillate or female) part which it fertilizes. The male part soon disintegrates but the female part stays firm and red-brown through autumn, though it usually becomes windworn and ragged by spring.

Abroad, cattail roots and tender shoots are much used for food, but to a typical Keystone angler a stand of cattails is just pleasant local color for his outing; a place where marsh wrens and red-wings build nests, where spawning carp thrash about, and where winds can gossip in long leaves.

6. PITCHER PLANT (*Saracenia purpurea*) is a curious kind of an insect trap. Its heavily-veined green and red leaves are shaped like keeled but handleless pitchers with hairy, flared lips. The throats are lined with stiff hairs pointing downward. Rain water collects in the pitchers. Insects fall into the water, can't climb out because of the thwarting hairs, drown, and are digested by the plant. The leathery, 5-petaled drooping flower, colored dull green, purple, pink, grows on a separate, nude, stiff stem that rises above the pitchers. I once made a study of the trapped insects; flies predominated but bugs and beetles were also caught. The U.S.A. has two other carnivorous plants: the rare and southern Venus' fly trap and the sun dew.

7. WILD HYACINTH (*Camassia scilloides*) is an attractive member of the Lily family which should be more widely known than it seems to be. It grows tall

and stately usually in standing water. The keeled leaves rise to a yard or more and are slightly topped by the taller, leafless stalks that bear many light-blue flowers. After fruiting, the stiff stalk and seed parts make interesting additions to a winter bouquet. The wild hyacinth is in no way related to the water hyacinth that clog waterways in the Gulf states.

8. DUCKWEEDS (*Lemna minor* . . . and others) are known by anglers around the world as bright green circles, or colonies of circles, that float on the water and are gobbled down in countless numbers by fish as well as by ducks. They have the distinction of having the smallest flowers of the seed-bearing plants. The family has only four genera and 13 described species. The largest, called the big duckweed, is but two-fifth of an inch across; it's green above, reddish below, and has several roots. The others are entirely green and have a single root or none. One group, called "duckmeal," has members the size of pinheads and is rootless. All of them have the unusual ability of rapid growth in poorly aerated situations where there is much decaying organic matter, so are helpful allies in restoring some measure of purity to polluted waters.

9. WILD OR BLUE FLAGS (*Iris versicolor*) or fleurs-de-lis are certain to be recognized by anglers striding through marshy meadows for these stiff but not unfriendly plants are so similar in shape to the many-hued irises in his garden. Our native wild flags grow to two or three feet and are all blue or purple with decorative touches of white and gold. They grow in sword-leaved beds from May through July. Occasionally an angler may meet the yellow flag which was brought to America from Europe by early gardeners. It enjoys escaping from formal flowerbeds and making its home in the wilderness.

10. PICKEREL WEED (*Pontederia cordata*) is a shiny green plant that grows in clusters that edge ponds and slow streams. They are easily distinguished by their large spade-shaped or triangular leaves and by flower stalk that rises from two to four feet. At its top is a mass of small blue flowers crowded around a four-inch spike that rises through a sessile leaf or spathe. Each floweret is dotted with a yellow-green spot and each produces a single seed.

LAKE ERIE

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the wintry wind which sets in with a howl, making it impossible for just about anything to navigate the lake waters. Quite a few king-sized rainbows will come in for a spawning run along with the coho to give anglers something extra to shoot for.

During December the Smelt begin to congregate around quite a few of the docks in the Erie area. The dock near the grain elevator located just a couple of blocks from Erie's main drag is one of the hot spots where an angler can catch a hundred or so of the

little fish that taste so good when you eat them fresh.

Besides the seasonal fish, there are a few varieties of finny creatures which are catchable the year around. Catfish and carp are "suckers" for doughballs most of the time and the sheepshead, which many anglers will swear is the lake's most abundant fish, will hit anything that moves or stands still.

For any fish, and in any season, Lake Erie fishing is GREAT! But, like any other body of water, the little old lady will have her ups and downs. The folks who catch the most fish from her are those who know every little nook and cranny in the lake.

KEYSTONE CAMPING

by Thad Bukowski

MUSKIE CAMPING

Tionesta Lake in Forest County is seven miles long and anchors the southern fringe of the Allegheny National Forest, an area of 476,000 acres. The lake includes 480 acres of water that impounds Tionesta Creek which each year receives over 22,000 trout. But at its outlet is one large tunnel-tube through which rushes all the water of this big stream. In the springtime the flow is a spewing, oxygen-filled spray.

The large hole below the outlet and the mile of river that follows before it joins the nearby Allegheny River, must be ideal muskellunge habitat. On the opener of the muskie season, the small federal camping area located here is overfilled. More than at any other time of the year, campers crowd the place in hopes of catching a river "tiger." No less than seven legal 'lunge were caught here on opening day last year.

Campers make their annual trek here during the first week of the muskie season as though going to a fishing Mecca.

Up to now the campground has been located on the north shore of the one mile stretch of stream just at the Outlet with separate sites for tenters and trailer rigs. Accommodating perhaps 50, only one bathroom area is available. By May of this year, however, the U.S. Corps of Engineers reports greatly expanded facilities along the south side, covering perhaps 1/4 of the one-mile long stream shore.

Major Richard Wiley and Pete Colangelo, both of the U.S. Corps of Engineers, reported to Northwest Division of the Pennsylvania Federation of Sportsmen's Clubs recently that the Corps has completed 82 sites additionally to be used by springtime. The only final work lacking includes sanitary facilities, but the Corps is installing temporary bathroom facilities for this season and campers will have more elbow room when the muskie season comes in on May 4, just after midnight.

The jumbo sized Jitterbug in black is a favorite lure of successful night

casters here and during the daytime the Cisco Kid, multi-colored jigs and Daredevil spoons, especially in red and white, are often snapped up.

Campers who bring boats have a ready access at the dam on the hill above the outlet, less than a mile away. There are no restrictions on horsepower within the dam. An excellent launching area with concrete ramp is available and boats troll Ciscos and Pikie lures. Trolled frogs are a good bait in season but frog season does not begin until July 1. (Ed. Note: Die-hard "froggers" may use plastic artificials.)

Vehicle campers are permitted at the Tionesta Reservoir tunnel outlet and at Nebraska Bridge approached from Rt. 36 north of Newmansville, by macadam road, Leg. Rt. 27008, which crosses the reservoir only during low water. Nebraska Bridge is inundated completely during spring high waters or other unusual storm situations. Camping by boat is also permissible around any of the shores of the reservoir but boat campers must keep well up on the hillsides, as the reservoir waters climb markedly during unusual overnight storms.

The Tionesta campground is at the southern outskirts of the town of Tionesta. On the other end of town, a small private campground also exists and close nearby is a Fish Commission hatchery that specializes in raising coho for the Lake Erie salmon fishery. Five miles upstream on the Allegheny which courses through Tionesta, is a new Pennsylvania Fish Commission boat access at West Hickory and there are six excellent eddies from here downstream to Tionesta, each of which could give up a pole-snapping 'lunge. In fact, Mike Clinger of Chicora took a 43 incher from the West Hickory eddy during the first week of the opener last year. This is also the eddy where the Commonwealth's heaviest walleye, a 15 pounder, was taken last year.

If you float-fish from West Hickory to the Tionesta eddy, beware, if you try to get into the Tionesta eddy. Gravel dredgers have so ripped the upper end that it is extremely dangerous to "run the river" at this point

and it would be advisable to disembark and pull your boat along the far bank, opposite the Rt. 62 shore.

The Tionesta campground, in Forest county, is reachable either north or south along Rt. 62 or from Rt. 36 northwest beginning at I-80 near the town of Brookville. In Tionesta, Lud Haller, local businessman, conducts a yearly contest and any muskie you might catch is eligible for prizes if registered. Beside, you might look in their book which shows all fish caught, the place they were taken, plus the bait used. (That is, if the anglers who caught them told the truth!)



This angler seems well pleased with a legal size muskellunge taken from the shore of the Tionesta, in that stretch of water below the Outlet, during the first week of last season.



NONE WASTED!

Lester N. Henry, Sr., age 78, of Strasburg, Pa., is the Champion crappie catcher at the Chester-Octoraro Reservoir. As of the end of June, Lester had 900 crappies to his credit. I have been encouraging the fishermen at the reservoir to harvest as many crappies as possible, since the reservoir is greatly over-populated with this species.

Incidentally, none of the fish caught by Mr. Henry are wasted, they all end up on the table.

R. A. Bednarchik
Waterways Patrolman
Chester County

ONE HUNDRED DOLLAR LESSON

While on duty at the Philadelphia Sport show, an avid Delaware River striped bass fisherman who utilizes the areas adjacent to the metropolitan area told me about two incidents involving he and his fishing partner that were quite rewarding.

The first involved his partner who, after landing a striped bass in the vicinity of a condominium, was additionally rewarded with an ovation from the residents who had observed the entire incident. Being a sort of showman, his friend "Sol" accepted the applause with a standing bow to them.

The most rewarding experience, however, involved a bet made by a person not believing that striped bass exist in the Delaware River and most certainly not in or around the Philadelphia area. This doubt resulted in a wager and another fishing trip. After several fishless hours, the non-believer was thrilled with the thought of winning the wager and making these two fishermen eat "Carp" but, at long last, a striper was caught, cautiously fought and brought to net—the first striper of the evening. The converted non-believer paid off on his wager. Total cost of this information? ONE HUNDRED DOLLARS!

Frank Schilling
Waterways Patrolman
Philadelphia County

USEFUL GIFTS

Talking to two fishing license issuing agents in Bedford County, I noticed that close to 100 1974 fishing licenses were sold for Christmas presents! A large percentage of the licenses sold by one of these agents were to non-residents. As of December 29, 1973, the two agents sold one-third more licenses (for the new year 1974) than last year. The number of trout fishermen at Koon Lake on December 29, 1973 was 72. A number of these fishermen caught their limit of three trout. This has been a very good winter season for taking trout at Koon Lake.

William E. McIlroy
Waterways Patrolman
Bedford County

\$7.50 A YEAR— OR \$300.00 A DAY?

During the third and final session of a Boating Safety School conducted at Hanover, some time was given at the conclusion for any questions concerning Boating or Fishing. The discussion soon settled on Fishing License increase and one fellow out of 37 wasn't sure he agreed with the \$7.50 fee. I explained the various Fish Commission programs to him and pointed out the increased costs the Fish Commission had to absorb the last few years. He parted with a better understanding of the revenue needed to keep the Fish Commission going.

From the Boating School I met with the owner of a sporting goods store. The conversation soon turned to fishing and also the increased costs. His complaint was that this year it will probably cost him \$300.00 a day instead of \$250.00 a day to charter a boat at the Bay!

Some people feel they "have" to catch a lot of fish to get their \$7.50 worth! Wonder how many fish one would "have" to catch to get \$300.00 worth?

William F. Hartle
Waterways Patrolman
York County

TRUE GRIT!

While on patrol below the Shenango Reservoir, I saw a young man throwing a brown paper bag away—a violation of the fish laws, so I apprehended him. Upon investigation, I found the defendant had his girl friend with him. He repeatedly denied throwing the bag of beer cans. I was just about ready to take the defendant to the District Justice when his girl friend said that if it went to a hearing she would testify for the Fish Commission! The defendant then decided to settle on a Field Acknowledgment of Guilt. If I ever get another spot open for a Deputy, I am going to consider this woman!

James E. Ansell
Waterways Patrolman
Mercer County

"LET'S GO FISHING"

The Fish Commission's slogan, "Let's Go Fishing," is being used to bring attention to the fact that this fine sport is nearby for virtually all Pennsylvanians. You may see it on bumper stickers, or perhaps a lapel pin worn by a dedicated angler. Recently, I received a personal check from Special Waterways Patrolman Clarence Swartz, of Adams County, forwarding payment for Angler subscriptions. "Let's Go Fishing" was imprinted on the face of his check! It shows that Clarence is getting the message across and probably knows some good areas to do just that!

Frank A. Kulikosky
Asst. Regional Supervisor
Southcentral Region

"FISHING WIDOW FAST"

Last spring, while checking anglers following an in-season trout stocking on Tubbs Run, I ran into Mr. James Roithner, of Library, Pa., "baiting up" near his car. When I asked him how the fishing was, he started to laugh and said he had a little story to tell me.

It seems that while Jim was being married that morning in a Pittsburgh magistrate's office he heard Tubbs Run was being stocked that day. Needless to say, Jim and Claire had their honeymoon delayed a few hours!

Joseph Kopena
Waterways Patrolman
Forest County

AMPLE REWARD—

During the unusual January thaw in Crawford County it was very evident that fishermen are very flexible in their methods of fishing. As soon as the ice was in an unsafe condition, many fishermen could be found along Shenango River and also along French Creek. These streams were unseasonable high, because of thaw, but yet persistence in fishing still pays off. On January 24th, Ted Fitch, of R.D. #1, Saegertown, was fishing in French Creek, near Cambridge Springs both with minnows and jigging, attempting to possibly catch a walleye, northern pike or musky. On this day Mr. Fitch was highly rewarded with a 49 $\frac{3}{8}$ inch, 39 pound musky, which was taken on a 4" sucker on a 10 lb. test line. This should be a note of encouragement to all "fair weather" fishermen.

Warren L. Beaver
Waterways Patrolman
W/Crawford County

Ed. Note: Ted Fitch and his musky appear on the inside of our back cover.

"RUNNING" SHAD!

Frank Wolf, of Allentown, came to my office on April 30, 1973 with a tagged shad caught in the Delaware River. This in itself is not unusual. But upon checking with Maryland, it was found this shad was tagged four miles south of Reedys Point in the *Susquehanna* River. It was tagged on April 18, 1973. This again is not unusual, but the fact that this fish traveled three hundred miles in twelve days shows that she was definitely "Running"!

Jahn W. Weaver
Waterways Patrolman
Northampton County

HOME OF THE BIG ONES

One Saturday last January, while on patrol along the Allegheny River, I checked at least thirty fishermen. All but two complained of not catching a fish. Two men, however, had three beautiful muskellunge on a stringer. The fish measured 44 inches, 43 inches, and 29 inches. The men said they had caught all three fish within one hour, at the exact same spot. They also informed me that on the previous Saturday, they had taken two other muskellunge, at the same place, and those fish were both over forty inches.

George R. Janes
Waterways Patrolman
W/Warren County

INGENIOUS!

Everyone seems interested in the Fish Commission Litter Bags, for carrying their fish, bathing suits, and litter—among other things. But my son, Bob, had a better use for them—he wore them while taking a bath! He was working with the Boy Scouts, cleaning up around an old iron furnace and fell, landed in a pile of stone, breaking both of his arms. He had them in casts and used the Litter Bags to keep the casts dry while he took his bath but has requested that I do not consider him as litter . . . just his casts!

Robert J. Cortez
Waterways Patrolman
Clarion County

LUCKY INDEED

While on boat patrol on the "Three Rivers" of Pittsburgh, I was stopped by a boater with Wisconsin registration. Louis Kujacznski and his wife had trailered their boat to Pittsburgh from East Troy, Wisconsin. They didn't have a river chart and were confused about where they were. I showed them a Pittsburgh road map and gave it to them to continue their cruise. I also inspected their boat for the state requirements. They passed with flying colors and I issued them a courtesy inspection sticker. Lou told me that we were very fortunate to have such good waters right in the middle of a big city where you can swim, fish or boat.

Robert P. Kaptz
Special Waterways Patrolman
N/Allegheny County

"JUST WONDERING"

Received a phone call the other day from a young man asking what was the largest crappie ever reported and I told him. He stated that he had caught an "extra-large" one and could it be registered? I asked where he had caught it and he said from a Boy Scout lake in upper Wayne County. I explained that the only fish that can be entered in our Citation Program must be caught from waters open to the public. He then asked, "Couldn't I say it came from some other lake?" After explaining that this was not what a good boy scout would do, he said, "I was just wondering."

Joseph E. Bartley
Waterways Patrolman
Lake Wallenpaupack Area

MYSTERY FISH—

A Bellefonte angler, Dave Hampton, called me one evening and told me that he had found a big trout lying on the Spring Creek road. The trout was very fresh and was still wet. I told him that I would see it the following morning, which I did. It measured 26 inches and weighed about 6 pounds and was identified as a Splake, which is a cross between a brook and a lake trout. Now a Waterways Patrolman gets into some strange situations, but this was ridiculous! We don't have any Splake this size in the hatchery that is located nearby; we haven't stocked any Splake this size for the last three or four years; and, who ever heard of a road killed trout?

Paul Antalasky
Waterways Patrolman
Centre County

NO PLACE LIKE HOME

With the nice catches of walleye and northern pike that have been showing up at the Kinzua Reservoir and the anticipated shortage of gasoline for this year, I expect to see many fishermen staying closer to home, rather than driving to Canada to catch the "big ones."

Bernard D. Ambrase
Waterways Patrolman
Elk County

MAN, IT WAS COLD!

While attending to Fish Commission interests on a bridge demolition project at Lake Raystown, the weather was most severe—the coldest day of the year. Not too much of a problem for the Pennsylvania boys, but it sure was most uncomfortable for the demolition folks who all hailed from Vicksburg, Mississippi!

Richard Owens
Regional Supervisor
Southcentral Region

STANDARD OPERATING PROCEDURE!

While sitting at the dinner table one evening, my oldest daughter commented to the rest of the family, "You can tell your Dad's a Waterways Patrolman when he tells you to help yourself to the gravy and then pass it downstream!"

James T. Valentine
Waterways Patrolman
Huntingdon County

“One Way to Tric’ a Trout”

by CHAUNCY K. LIVELY
photos by the author

To try to choose a favorite among the mayfly hatches would indeed be a difficult task because each evokes its own special brand of angling excitement. A big hatch of Green Drakes is always spectacular because of their size, regardless of whether the trout decide to feed on them, and the angler always has the feeling that *this* is the time when his “dreamed-of trophy” will come to net. The appearance of Sulphurs in large numbers gives one a comfortable feeling of confidence that soon free-rising surface feeders will begin to show themselves. But if I were to choose a hatch that would leave the biggest void in my angling experience, should it, perish the thought, suddenly disappear from the scene, it would be the magnificent little *Tricorythodes*.

The family Caenidae is represented in Pennsylvania by three genera: *Caenis*, *Tricorythodes* and *Brachycercus*. Characteristics shared in common are small size, the presence of three tails, broad wings with a dark line along the leading edge and the absence of hind wings. The male spinners of *Tricorythodes* are primarily black or dark brown while those of the other two genera are pale in coloration. Both *Tricorythodes* and *Brachycercus* emerge in early morning while *Caenis* generally appears in late evening and often after dark. But the most definitive key in distinguishing *Tricorythodes* is in the three-segmented structure of the male claspers, differing from the one-segment conformation of those of both *Caenis* and *Brachycercus*. These differences may be seen in the field with the aid of a 10-power glass or at home with a wide-field microscope.

Tricorythodes atratus is the dominant species of this genus in Pennsylvania and, while it is most commonly encountered on our limestone streams, I have had reports of its presence on some of the mountain freestone streams as well. Schweibert also lists *T. stygiatus*, a common mid-west species, as an inhabitant of Pennsylvania waters and it may be that both species share some of the same streams. Except for slight differences in size the two species are quite similar in general appearance. In the southcentral limestone streams *Tricorythodes* often appears as early as mid-May, making several false starts throughout May and June. But by early July the hatch begins in earnest and it makes its showing daily, as dependable as Old Faithful, throughout the summer and fall months. On the FISH-FOR-FUN water of Falling Springs we have fished the hatch well into November, when it still seemed to be going strong. In point of emergence span, it is unparalleled by other mayflies.

During the summer months it is possible for the late-sleeping angler to miss the *Tricorythodes* hatch entirely because the emergence of the duns and fall of spinners is finished by 9:30 or 10:00 A.M. But in autumn, when nights are cool, it makes its showing progressively later; and, by November, it is likely to make its daily appearance at high noon. Owing to the diminutiveness of these insects, even when they are present in their usual vast numbers, the hatches lack the dramatic visual impact of a heavy hatch of large flies. Indeed, many an unsuspecting angler has fished right through a massive fall of *Tricorythodes* spinners without realizing what was taking place, despite the sight of trout busily rising everywhere. But the knowledgeable fisherman watches toward the morning sun for the swarms of spinners high above the stream in anticipation of the appearance of little black and white specks on the water, which will be the spent females floating flush in the surface film. Then he knows the fun will begin.

The *Tricorythodes* pattern shown in the illustrations represents the spent female spinner with its black thorax, pale abdomen and outspread wings. It has given me many hours of superb dry fly fishing, both in our home state and in Michigan, and I am happy to pass it along to my many fly-tying friends who relish fishing



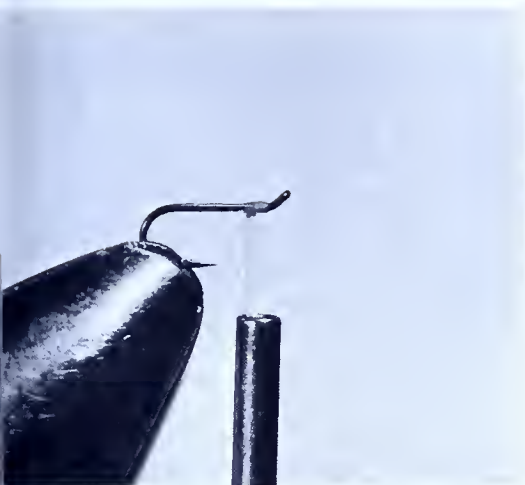
Tricorythodes atratus—
the male spinner.

“small and fine.” The pattern is easy to tie but mention should be made of the somewhat unorthodox method of fashioning the wings. Two bunches of long hackle barbules are placed together, the butts of one bunch alongside the tips of the other, to form a single bundle of uniform density from end to end. Then the bundle is bound at its middle to the hook shank, in the spent position, with figure-8 turns of thread. Next, both ends of the barbules are trimmed, leaving a spent wing of appropriate size extending out each side. The thread is then brought up through the wing fibres on the tyer’s side, over the shank and down through the fibres on the far side. This helps to spread the barbs. Then a circular, lateral turn of thread is made under the base of the far wing, over the shank in front of the wings, under the base of the near wing and over the shank in back of the wings. The latter maneuver flattens the wings and is repeated with fur-dubbed thread when the thorax is formed.

On small meadow streams the male *Tricorythodes* spinners generally fall to the grass away from the water. But on the Au Sable River, and I believe it is a typical occurrence on many large streams, there is a short lull after the spent females have passed, following which many males drop to the water. This generally prompts a second rise of trout, somewhat briefer than the first, and it requires a pattern with an all-black body. A corresponding male spinner pattern follows the dressing procedure of the female, substituting black tying thread, long tails of dark muskrat guard hairs and an all-black fur body.

TYING A FEMALE TRICORYTHODES SPINNER:

◀ 1. Bind fine white tying thread behind the eye of a size #22 dry fly hook and half-hitch.



2. Select a large, pale dun hackle and ► stroke downward below the tip to cause the barbules to stand out at right angles. Remove the webby barbules from the lower hackle. Then, as shown, grasp the tips of the outstanding barbs and cut the butts near the center rib. Lay this bunch aside on a flat surface with tips protruding. Then grasp tips of barbs on remaining side of hackle and cut as before. Turn second bunch around and lay alongside first bunch, with butt ends of second even with tips of first. Then gather both bunches together as a single bundle.



◀ 3. (Top view) Lay bundle of barbules across hook at right angle in spent wing position and bind at its middle with figure-8 turns. Half-hitch. Trim ends of barbules to desired wing length, equivalent to length of hook. Then, as shown, bring thread up through barbs of near wing, over shank and down through barbs of far wing.



4. To spread and flatten barbules, make ► a circular, lateral turn of thread snug under the base of the wings. (See text.)



◀ 5. Spirol thread to bend and tie in three pale muskrat guard hairs as short tails.



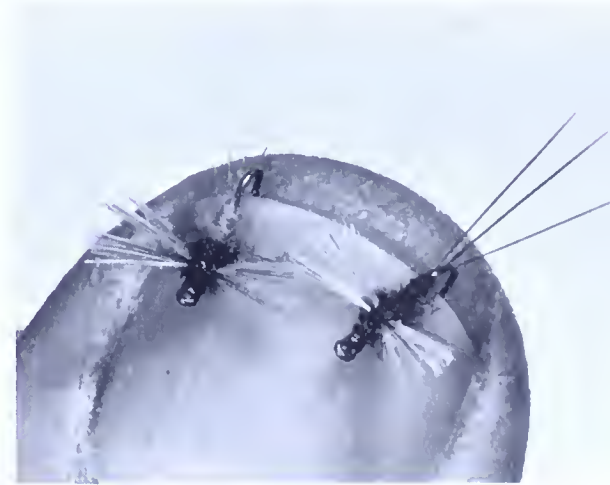
6. (Under view) Apply a sparse dubbing ► of pale beaver fur to thread and form a tapered abdomen. Half-hitch behind wings. Then apply fine block fur dubbing to about 1" of thread as shown.



◀ 7. To form thorax, wind block-dubbed thread around base of wings in figure-8 turns, then make circular, lateral turn as in step 4. Finish thorax with a turn or two in front of wings. Whip-finish and cut thread. Apply a drop of black locquer to head and a drop of thin clear lacquer to top of thorax.



8. Completed Tricorythodes spinners: fe- ► male on left; male on right.



CO-OP NEWS

by Bill Porter

A monthly feature devoted exclusively
to Pennsylvania's Cooperative Nurseries—

*Cooperative Nurseries are fish rearing facilities
built and maintained by organized sportsmen
... at their own expense.*

*Fingerling fish provided by the Pennsylvania Fish
Commission are reared and released in public
waters of the sportsmen's choice
in accordance with policies prescribed by the
Fisheries Division's Cooperative Nursery Branch,
Robert H. Brown, Chief.*

The Ontelaunee Rod and Gun Club, one of Lehigh County's finest trap shooting groups with state and national honors to its credit, is also known for another plus in outdoor recreation. Their cooperative nursery has been producing fine trout for the area's fishing since 1969 and it is this latter concern that is the thing of the moment here.

Carl Bernhard, one of the "work horses," explained some of the unique features of the nursery and its intake system. For one thing, the site is rather marshy and much work has been done to establish nature paths, stream banks, and other conservation devices to make the area useful and still retain its natural characteristics. As a result, some problems were encountered in carrying water from the source into the nursery. The problem was solved by the donation of some heavy, orange plastic sheeting. Club members installed the sheeting to form a trough to the nursery units. The end product was a unique arrangement that reduced leaks in the water supply and prevented the erosion of the soft banks of the marshy stream. The use of the plastic was a novel idea that is currently working well.

The nursery itself is a well-constructed cement block affair with adequate slots for screens and has an automatic floating debris cleaner at the lower end. This rotating device is water-powered and has a series of blades that skim the water and pick up leaves and bits of grass that might block screens. At the time of our visit, it was frozen in place . . . but then there were no leaves either!

The nursery crew and the club itself are extremely conservation-minded. Aside from the tremendous work needed to establish the nursery in the marshy site, the sportsmen have done considerable work downstream from the nursery. Stream improvement devices have been installed and particular sites and areas of the stream have been named for local conserva-

tionists of merit. This honor list will be added to as time passes and meritorious work is done. Additional stream improvement work is being done by the club in open fishing waters where the club stocks its trout.

And speaking of trout, about 6,000 are raised annually with 4,000 rainbows and a mixture of 2,000 browns and brooks in residence at the time of our visit. Additional hold-over fish were in the small pool immediately below the nursery's outlet. Other fish were located in the improved section of the stream for visitors to observe as part of the nature scene of the whole area.

Stocking occurs in Jordan Creek, Slate Creek, Ontelaunee Creek, and Lake Leaser. The latter is a pond of several acres, owned by the club, and located just a few yards downstream and to the left of the nursery. Open fishing is permitted in season and some species of fish other than trout are available for the taking.

Major problems have been held down as far as the fish have been concerned. The big issue was the initial construction and preparation of the location. "Agnes" treated the nursery kindly and things have gone along in pretty good order—at least as far as the delicate operation of

raising trout is concerned.

"Barney" indicated that operating costs of the nursery come from the organization's general funds. As a result, there is no need for special funding projects and no foreseeable money woes at the moment.

Organization of the fishing interests within the Ontelaunee Rod and Gun Club include a Fish Committee with chairman, Pete Pilig; a nursery manager, Donald Christ; and a host of willing workers with "Barney" Bernhard as a prime example.

Club interest in the nursery is good and not buried under the extensive trap grounds and shooting schedules and promotions. In fact, "Barney" took us into the club house and out of the freezing rain to show us with pride the pictures of winning shooting teams and trophies won in years past. There is no doubt that most of those shooters pictured would probably show off the club's nursery and trout to any visitor to the grounds.

The organization has several good things going and they know it; proving that a sportsman's group can have diversified interests and promote them to full advantage. Cooperative nursery trout and clay birds can mix successfully—ask the Ontelaunee fellows if you doubt it.



BOATING

Questions & Answers

by Capt. Jack Ross

From D. W., Farrell:

"My 20-foot outboard runabout is used for both waterskiing and fishing, but the 100-hp. outboard motor chokes up pretty quickly when trolling or idling, and it uses quite a bit of gas. Would there be any advantage in putting a second, smaller outboard on the boat, and would a small engine push the boat at any reasonable speed?"

—To answer the last question first, a six-horse outboard would give you a top speed of about seven miles per hour. Just how much gas you would save will depend on the number of hours you use the boat with the small motor, but figuring on the basis of 50 hours per season, you would pay for the small engine in four or five years just in fuel saved. An additional advantage would be extending the life of the large motor, since idling speeds are very hard on big outboards—as well as wasteful of fuel.



From A. M. D., Pottstown:

"My wife and I are in our sixties, but we enjoy fishing and boating. Do you know where we could get a boat made of styrofoam or other light plastic that would carry both of us and still be light enough to carry on top of the car?"

—I would strongly advise against a foamed plastic boat, or even a very light aluminum skiff. Light weight is all very well, but it almost always means an unstable boat. Most of the cartoppers we have seen are so jittery in the water that the slightest shift of weight makes them heel suddenly and dangerously. You would be much better off with a fairly heavy aluminum john boat with ample beam. You could handle a very stable 14-footer with little effort on a light trailer.

(Ed. Note Capt. Jack's reply to A.M.D. is sound advice with regard to most car-

toppers. However, anyone who sincerely wants to stay with a cartop boat should take a number of factors into consideration. There are a number of 12-ft. semi-V hulls of .064 gauge aluminum, with 48" beam, that are relatively stable—but these will weigh about 100 pounds. Some 14-ft. john boats of the same beam in .051 gauge weigh about the same. Although there are all sorts of "handy" devices on the market to make the loading "easy," all involve lifting one end of the boat as high as the top of your car. Practice doing this at a boat dealer's showroom—or with a friend's boat. Can you, or do you want to, go through this lifting exercise comfortably every time you go boating? Our Bureau of Waterways cautions against sacrificing on-the-water stability for convenience in loading. Our fatality statistics indicate that too many boaters were tempted to buy an 8, 10, or 12-footer because of the ease in loading—consequently, they're no longer boating!)

Capt. Jack Ross, whose columns have been a regular Angler feature for many years has decided to "hang it up." The Angler staff joins our readers in thanking Capt. Jack for his handy tips throughout these years.

From V. E. C., Carlisle:

"Would you ask your readers if anyone has a connecting rod for a six-horsepower Elgin outboard made by Chrysler?"

—Glad to oblige, but when writing for information on parts for older motors, we can be a lot more help if you include the model and serial number of the engine. A fair stock of parts for most older outboards is available from certain dealers and repair shops, but without the numbers, it is almost impossible to tell what you need. If you will send me the model and serial numbers of your engine, I will try to find out where you can get the parts you need.



From C. M., Pittsburgh:

"I would like to install a fixed fuel tank in my outboard runabout, and

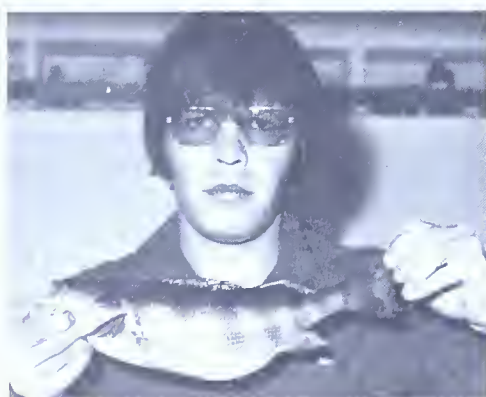
would like some advice on how to go about it; can you help?"

—First, decide where you are going to install the tank, keeping in mind that you don't want to upset the trim of the boat or overload it. Ideally, the tank might be located back near the transom in the space where you now carry your portable tanks. Measure the space available, then sketch up a rectangular tank that will fit. The tank will hold seven and one-half gallons for each cubic foot of capacity, and each gallon of gas will weigh about seven pounds. Any sheet metal shop can make your tank, which should be welded of 16-gauge steel, preferably galvanized. In the top of the tank weld a 1¼-inch pipe extending to within one inch of the bottom, for the filler; a ¼-inch suction line also extending to within one inch of the bottom, and a short stub of one-half inch pipe flush at the top, for a vent line. Locate the filler cap at the stern or side to avoid any spillage in the boat, and use a length of rubber hose, if necessary, to connect to the tank. Connect the vent pipe to a through-hull fitting a few inches higher than the tank with rubber hose, and attach a fitting to the suction line which will take the hose end from the engine. Secure the tank firmly in place with metal straps, using heavy felt between the straps and the tank to prevent chafing. Where rubber hoses are used, secure them with stainless steel clamps and use a gasket compound. Check all connections carefully for leaks. Since it is difficult and not worth the effort to install a gauge, locate the filler pipe so that you can use a stick to measure the amount of fuel in the tank. When you have finished, be sure to inform your insurance company of the change, in case there is some policy provision requiring an additional premium for a fixed tank. Also, if you did not carry one before, you will now be required to have an approved fire extinguisher.

FISH TALES



GLENN EAGLE, of Dallas, proudly holds the 27-inch, 4½-pound chain pickerel he caught from Harveys Lake in Luzerne County last September.



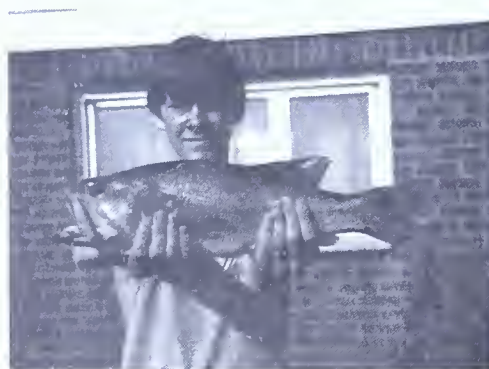
A West Chester resident, RALPH FERGUSON, was fishing a farm pond in Chester Co. last November with spinning tackle and a purple marabou jig when he caught his 14-inch, 1½-pound perch.



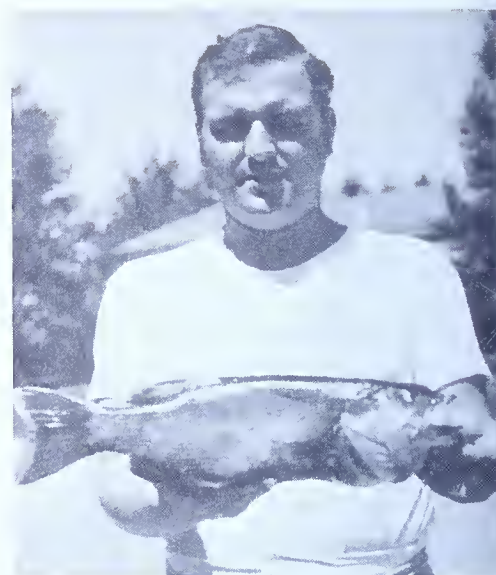
JOEY GIGLER, 12, of Lower Burrell, holds the 21-inch, 4-pound channel catfish taken from Lake Arthur in Butler County early in September. Joey also received an Angler Citation.



This young lady, POLLY LAMISON, of Three Springs, caught her 19-inch, 4-pound largemouth bass last September from Meadow Grounds Lake in Fulton County and earned an Angler Citation.



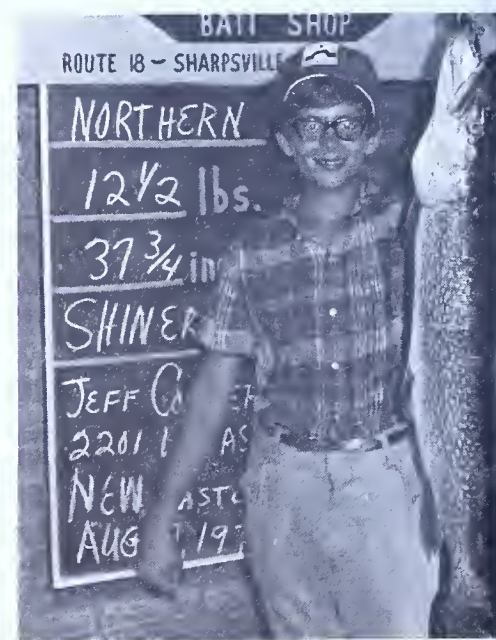
ROBERT TARR, 14, of Washington, displays the 20½-inch, 4¼-pound large-mouth bass caught in Pymatuning Lake last July with nightcrawlers as bait. Another Citation winner for 1973.



Angler BARRY SLEAR, of Carlisle, holds his 20¼-inch, 4-pound smallmouth bass taken from the Susquehanna River in Dauphin County last August using spinning tackle and minnows.



KEVIN ANDERSON, 14, of Newport also shows a 19¾-inch, 4½-pound smallmouth bass taken from the Susquehanna River in Perry County last August. He was spin casting using a plug.



A New Castle youth, JEFF COWHER, 11, was fishing Shenango Reservoir in Mercer County when he landed a 37¾-inch 12½-pound northern pike using a golden shiner.



Young SCOTT ROWE, 10, of Halifax was fishing the Susquehanna River in Dauphin County last July when he landed a 25½-inch, 6-pound carp. It hit a night-crawler and earned Scott a Citation.



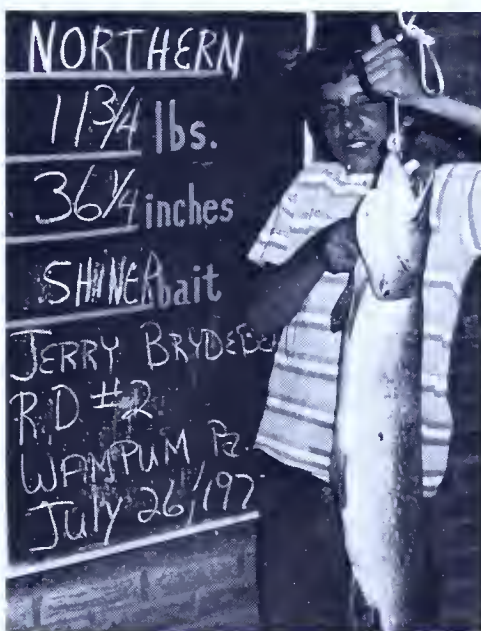
RUSSELL DODGE, of Riverton, N.J., caught this nice 15½-inch, 17½-pound crappie from Gouldsboro Lake in Monroe County last October. He used a rapala lure and earned a Senior Citation.



JOHN FORRY, Jr., 13, of Seven Valleys, proudly shows his catch of a 27½-inch, 11-pound carp taken from the southwest branch of Codorus Creek, York County. It hit a nightcrawler.



MARK EULNER, 8, of Little Silver, N.J., caught a 15¾-inch, 1-pound brook trout from Pohopoco Creek in Monroe County during April '73 using a fly rod and a muddler.



JERRY BRYDEBELL, 14, of Wampum, caught a big 36½-inch, 11¾-pound northern pike on a shiner while fishing Shenango Reservoir in Mercer County last July. He earned a Citation for this prize.



BRIAN MECKES, 13, of Palmerton, caught this beauty—a 22¾-inch, 4¼-pound rainbow trout from Beltzville Lake, Carbon County, last August. Brian used worms for bait.



Angler CLOYD BROWN, of Sharon, was fishing Kinzua Dam in Warren County last August and caught his 20¾-inch, 4-pound smallmouth bass. He received a Senior Citation for his catch.



JOHN RUNKLE, 14, of Seven Valleys, caught a 15½-inch, 2-pound fallfish from the southwest branch of Codorus Creek, York County, in August, while using a fly rod and minnows for bait.



Another New Jersey angler, LEONARD MACK, of Florham Park, made this catch at Kettle Creek in Potter County in August—a 17¾-inch, 2½-pound brook trout.

THE ANGLER'S NOTEBOOK



by Richard F. Williamson

FISH FACT: Fish are not actively feeding all of the time for a very logical reason. In the summer, a fish takes 10 to 12 hours to digest its food, so that it is likely to be "off its feed" during this period.

Big brown trout prowl shallow water after dark in search of minnows. A floating lure that creates a disturbance on the surface will attract its attention, since in the darkness the trout relies on sound vibrations rather than sight to locate its prey.

A shooting head or forward taper line is not necessary for most trout fishing. They are lines designed to handle heavier lures and to achieve longer casts. A double taper line is sufficient for the relatively short casts used in the average stream.

Don't feel guilty about fishing bluegill nests during the spawning period. These fish are so prolific that unless a good number of them are caught, a lake or pond becomes over-populated, and the fish become stunted due to an insufficient amount of food.

Get down on your knees in shallow water to cast to rising fish. That may be the only way to get within reach of them without spooking them.

Small streams and spring holes of big creeks and rivers, where the water is cooler, are areas the brook trout angler must explore when the weather becomes warm.

Don't jerk the rod when a trout takes a fly tied to a fine leader tippet. Just lift the rod gently with the wrist, and the hook will penetrate easily. Points of hooks on which small flies are tied are very fine and sharp, and no force is needed to drive them firmly into the flesh of the fish.

A soft paper handkerchief carried in the pocket comes in handy when a dry fly becomes water-soaked. Press the fly gently inside the folds of the soft paper, which will quickly absorb the water.

When the light level is low, as during cloudy days or at dusk, trout cannot see the exact colors of the angler's flies. It is more important to match the artificial to the size and silhouette of the natural insect than it is to try to match its precise colors.

Don't sneer at chain pickerel! They are hard fighters and good eating, even if they are bony. Top live baits are minnows and small frogs. Bucktailed spin-

ners and small spoons decorated with pork rinds are excellent artificial lures.

Fishing a wet fly in fast water gives the angler an advantage. The vision of a trout is limited under such conditions, and the pace of the current gives the trout less time to inspect the fly.

One desperate last move can be made if trout are feeding actively on a hatch of insects and yet refuse your fly, even though you may think it a precise imitation. Try a fly in sharp contrast—in size and color—to the naturals.

Keep the fly rod reel well oiled at all times to prevent wear on the click pinion and pawl.

Night fishing for trout with big wet flies is a favorite sport of many anglers, especially in streams which are heavily fished and in which big trout are very shy.

Shallow water feeding grounds of most species of fish get major attention, but the fact is that fish spend more time in deeper water—a place of safety—than in the shallows. So when fish are not feeding in shallow water, give a good workout to deeper water adjacent to feeding areas.

VETERAN FISH COMMISSION EMPLOYEES RETIRE—

Arthur D. Bradford, former chief of the Fish Commission Division of Fisheries, retired on February 22, 1974, after 32 years of service.

Art joined the Commission as a fish pathologist in 1942, served in various capacities: assistant chief aquatic biologist, chief pathologist, assistant chief, Division of Fisheries, until promoted to Division Chief in 1970, the position he has held since.

A native of Forksville, Sullivan County, Art holds a B.S. degree in Microbiology from Penn State and has taken graduate courses leading to a doctorate.

During World War II, he served in the U.S. Army in Brazil as an officer in the Medical Corps.



A. D. Bradford

R. G. Bender



Russell G. Bender, employed as a fish culturist at the Reynoldsdale Fish Cultural Station, retired on February 22, 1974, after 44 years of service.

Russell is a native of Bedford and started his lifelong career at Reynoldsdale in 1929. At that time he was a part of the construction crew that built the hatchery. He continued as a fish culturist, and played a vital role in the making of Reynoldsdale the "number One" hatchery in trout production efficiency for the state.

Russell plans to become active in sportsmen's clubs and spend some time fishing (for some of the trout he had been rearing) plus a good bit of hunting and traveling.

Muskellunge Season Opens on May 4th!

(Along with northern pike, walleyes, & pickerel!)

Ted Fitch, of Saegertown, caught this 49 $\frac{3}{8}$ ", 39-pounder in French Creek, near Cambridge Springs, in January on a chub. (Try buying 39 pounds of meat anywhere for \$7.50—the cost of your fishing license!)

So you don't live anywhere near French Creek? All of the game fish coming in season on May 4th can be found in every corner of the state!

Try the Allegheny, Susquehanna, or Juniata Rivers . . . Somerset Lake . . . Edinboro Lake . . . Pymatuning Lake . . . Bald Eagle Creek . . . Beltzville Lake . . . Perkiomen Creek . . . we could name many more!

If you'd rather just look at the pictures of big fish, then send us your name, address, zipcode, & \$2.00; we'll mail you the Angler for the next twelve months.

Send To:

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***Why don't you
go fishing too?***



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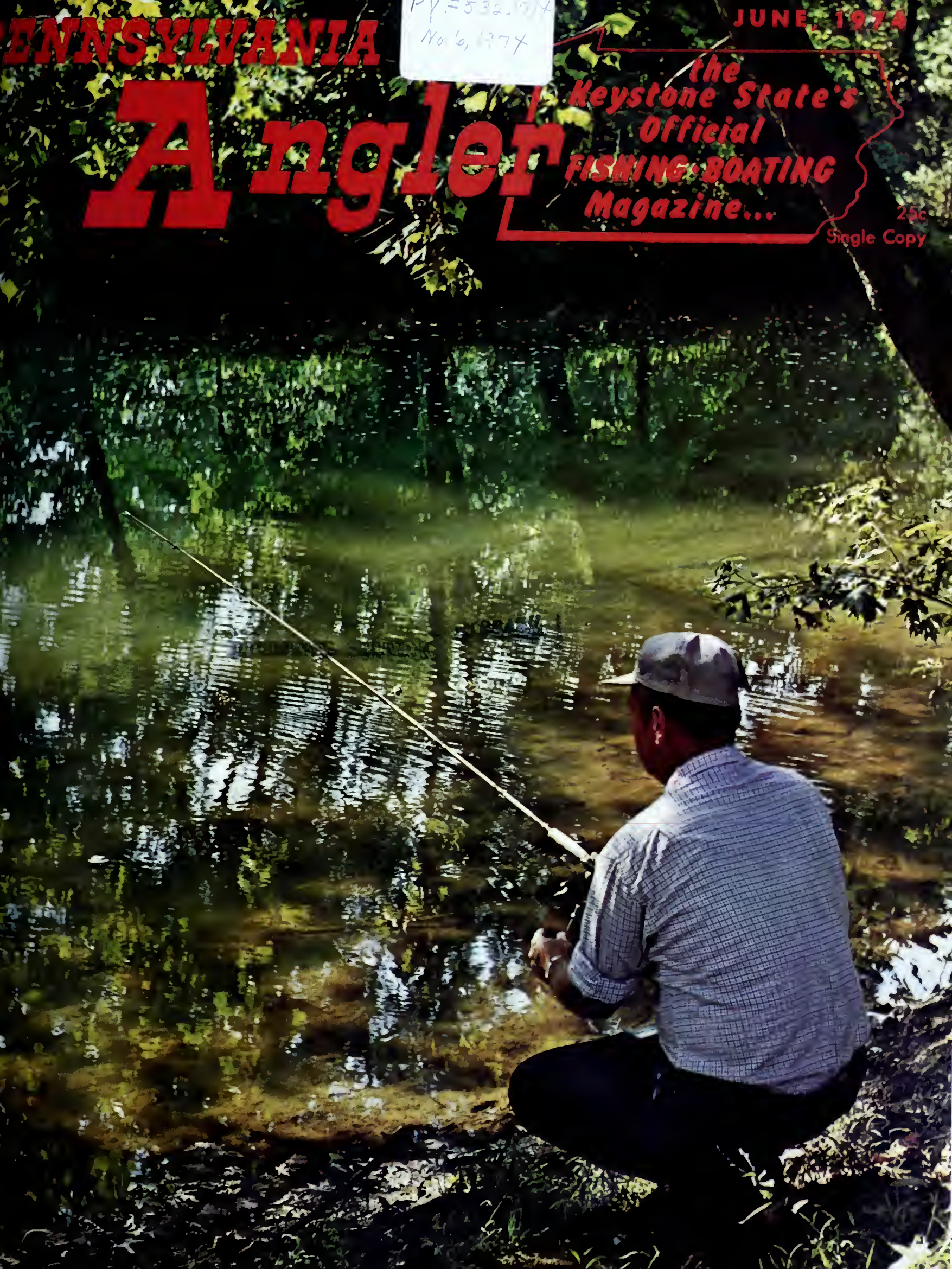
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JUNE 1974

Angler

the
**Keystone State's
Official
FISHING • BOATING
Magazine...**

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Let's Not Spoil A Good Thing!



How farsighted were some of Pennsylvania's conservationists over two decades ago! Early in 1954, Justice Grover C. Ladner, who was Honorary President of the PFSC at the time, expressed his alarm at the Supreme Court decision of that year which allowed the City of New York to divert up to 800 million gallons of water per day from the Upper Delaware River as a water supply for the city.

At that time, "Gotham" had convinced the Supreme Court that it would not use the mighty, virtually untapped, Hudson flowing right past their door with a daily flow of 18 billion gallons!

At this writing, a good run of shad is providing hundreds of thousands of man-hours of great sport—and excellent food—on the Delaware River. Looking ahead to that pending debacle, the construction of the Tocks Island Dam, we are all the more convinced that a re-evaluation should be undertaken by the Delaware River Basin Commission for alternate water supply sources for Northern New Jersey, Western Connecticut, and New York City. All of these areas are serviced by the DRBC . . . but they are all *outside* of the Delaware River Basin!

The Hudson River is being cleaned up to the extent that there is now a viable shad run; other anadromous fish are showing up in increasing numbers in the upper Hudson—yet the proponents of Tocks Island move on relentlessly.

The Fish Commission's regional biologist, Richard Marshall, testified before the DRBC in late April, and some of his testimony bears repeating.

"The Pennsylvania Fish Commission is *the* agency responsible for promoting, developing, and maintaining a maximum level of fishing and boating opportunities on the waters of the Commonwealth. The Pennsylvania Fish Commission, therefore, represents the interests of the vast majority of the Commonwealth's citizens who seek water-related recreation. Proponents of the Tocks Island Dam have, since its inception, listed recreation as one of the major benefits of the project.

"However, the quality of the recreation which would be provided by the project cannot begin to approach the quality of recreation to be found on the river today. Many fishermen and boaters attach high aesthetic values to fishing and boating in a free-flowing river which cannot be duplicated in an impoundment. The river, with its rifts and eddies, and ever-changing moods, provides a form of recreation which should be preserved for future generations to enjoy.

"The necessity of the construction of Tocks Island Dam, to meet water needs of the basin, must be questioned in light of the fact that huge amounts of water are removed from the basin daily to provide water for cities within the Hudson River Basin. Why cannot these cities utilize water from the Hudson River watershed to meet their water needs? Why must we destroy a magnificent river in order to provide water for those who have at hand available water resources of their own?

"The establishment of the Delaware Water Gap National Recreation Area has rescued the river from what was certain to have been overdevelopment due to the construction of summer homes with resulting public inaccessibility.

"The river, as it is today, and as it was known to the Lenni Lenapes, protected and enhanced by the recreation area, will provide a unique outdoor experience for future generations. On the other hand, the construction of the dam would provide to future generations only a classic example of our shortsightedness in destroying forever the wonders of our natural environment in order to meet our insatiable appetite for a more convenient way of life."

The Fish Commission is concerned with far more than a "local" loss of 37 miles of highly productive fishing and recreational water. Anything as big as Tocks Island will surely encourage development all the way down the river—in an area already overdeveloped—and the water, and the citizens who depend on it, will suffer . . . all the way to the already unsavory Delaware River Estuary!

RALPH W. ABELE
Executive Director

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MILTON J. SHAPP, Governor

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June, 1974

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FRONT COVER: During the summer months, Pennsylvania's streams are low and clear—calling for extra effort on your part. This is Cumberland County's Conodoguinet Creek. Back Cover: That bass is what it's all about!

Photos by the editor

JAMES F. YODER, Editor

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*If you have ever wondered why you caught
a bass, walleye, northern, or some
other fish that shouldn't have
been there, join the crowd!
It's sometimes a puzzle.*

Fishing Outlook

by Stan Paulakovich

The travels of fish during their spawning run are a fairly well known and predictable thing. Their wanderings at other times are a little known and many times unexplainable act. Some fish, like the striped bass and the bluefish, are known to make feeding migrations at different times of the year. They follow the hordes of bait fishes up along the coastline on a feeding spree.

Along the Delaware River, a peculiar situation occurs with the walleye. During the summer months, when the fishing pressure is heaviest, catches of walleye are almost nonexistent. During the winter months, a few hardy souls who know the characteristics of the river, take catches of walleyes that are amazing. Walt Burkhart, Waterways Patrolman in Monroe County, feels strongly that the Delaware walleyes do make a feeding migration into this area during the winter months.

Walleyes are difficult to raise and almost impossible to predict in regards to their establishing themselves in any body of water. Several years ago, a fee pond owner in Allegheny County purchased 200 adult walleyes from a commercial hatchery. He placed these in his pond, which was completely encircled by a nine foot fence. Fishermen had to enter through a gate to check in, and pass out through the same gate to report their catches. An upright pipe, 9 inches in diameter, standing in the middle of the pond drew off the excess water from the feeder streams and springs.

In two years the owner had recorded catches of only 17 of the walleyes he had purchased. In drawing down the pond and seining the last foot of water,

only 2 adult walleyes were captured. Where the other 181 fish had got to is a mystery!

The champion roamer of them all was a small-mouth bass that Waterways Patrolman Tony Discavage stocked in Crooked Creek, in Armstrong County. Back in the late fifties, 200 adult small-mouth were trapped in Lake Erie for release in other waters and these fish were all tagged. Several days after they were stocked, one was reported caught at Pittsburgh, on the Allegheny River, 35 miles below where it was planted. In the ensuing days, reports began to trickle in of other fish being caught further down on the Ohio River. The "KING OF THE ROAD" proved to be a fish taken some 800 miles away at Albany, Indiana! It made this trip in a little over 80 days. Apparently these fish didn't move for either spawning or feeding, something about the water where they were put in wasn't to their liking so they decided to pick up and search for a more suitable habitat.

Rainbow trout have this nomadic trait to a certain degree. Often times they will move on downstream at the slightest provocation.

The tremendous populations of game fishes at the mouths of warm water discharges in winter, and at the bases of dams during the summer months, is certainly a feeding migration or a habitat preference move. These areas couldn't possibly sustain those great numbers of fish on a year 'round basis.

Our northern pike must have a good deal of this wanderlust built within them. In many waters in which they are stocked, habitat and food conditions agree with them and they do remarkably well. Other places they will tolerate for a year or two, then move on to greener "pastures."

The headwaters of Swatara Creek, in eastern Pennsylvania, are in the coal fields of Schuylkill County. Subject to a tremendous load of acid mine drainage, the stream doesn't have any sign of fish life until it gets to the Lickdale area of Lebanon County. As it flows southward from here, it picks up good clean water from the streams coming off the Blue Mountains. It gets to be of pretty good size here and from the village of Harpers downstream, it is floatable by canoe. Fine fishing for fallfish, smallmouth bass and northerns is rapidly becoming a reality in this stretch.

Through 26 miles of Lebanon County, increased flow and better water quality is evident every mile of the way. Just north of Hershey, the "Swattie" is joined by the Manada Creek and winds through Dauphin County 40 miles before it empties into the Susquehanna below Highspire.

This stretch has several small dams in it and many big deep holes. Muskies stocked a few years ago are doing fine and numbers of legal-sized fish have already been reported. What is puzzling here is the great numbers of northern pike being caught because northerns were never stocked directly in the area. These fish must have come down from Sweet

continued on page 29

CHECK THAT PRIZE CATCH— IT MIGHT QUALIFY FOR A

Pennsylvania Angler Fishing Citation!

New minimum sizes to qualify for a Pennsylvania Angler Fishing Citation are listed below. Although effective May 1, 1974, applications

will be honored for qualifying fish caught within 90 days preceding that date. You may use the old application forms, but follow the new sizes below.

SPECIES OF FISH	MINIMUM LENGTH IN INCHES	
	Senior Citation	Junior Citation (under 16 yrs.)
Bass, Largemouth	23	18
Bass, Smallmouth	20	18
Bluegill	10	9
Bowfin	24	20
Carp	33	28
Catfish, Bullhead	15	14
Catfish, Channel	28	20
Catfish, Flathead	36	30
Crappie (Black or White)	13	12
Eel	40	30
Fallfish	18	14
Muskellunge (incl. Tiger)	45	30
Perch, Yellow	14	12
Pickereel, Chain	25	23
Pike, Northern & Amur River*	36	25
Rock Bass	11	10
Salmon, Chinook	30	28
Salmon, Coho	28	26
Shad, American	25	20
Trout, Brook	17	14
Trout, Brown & Rainbow (incl. Palomino)	24	18
Trout, Steelhead**	27	25
Walleye	30	22

* The Amur Pike is limited to Glendale Lake, in Prince Gallitzin State Park, Cambria County.

** Lake run rainbow trout of Lake Erie and its tributary streams.

As in the past, Fishing Citations will be issued only for fish caught in Pennsylvania waters open to public fishing without charge, using legal methods, and during the open season for that particular species of fish.

A new provision requires that photographs be

submitted as proof of catch. Photos should be clear enough to enable our staff to properly identify your catch. Horizontal close-ups, showing tail and other fins are best.

New application forms will soon be available at license issuing agents.

Angler Subscription Rates To Increase ***Effective September 1, 1974***

In order to offset increased production costs, especially in postage and paper, the Pennsylvania Fish Commission has approved an increase in subscription rates for the *Pennsylvania Angler*.

The new rates, \$3.00 per year, \$7.50 for 3 years, 30¢ for a single copy, are effective Septem-

ber 1, 1974. Present subscribers may renew their subscriptions (for a maximum of three years) at the present rate, \$2.00 for one year, \$5.00 for three years. New or renewal subscriptions at the present rates must be postmarked not later than August 31, 1974.



FUN & PROBLEMS

I want to thank the Pennsylvania Fish Commission for the fabulous fishing in Pennsylvania. I have enjoyed fishing from Cherry Run (our local trout stream) to Prince Gallitzin State Park, which has not only a great fishing lake, but one of the best camping spots in the state. But, I have a few problems. I would like to know if anybody has any information for making a homemade tip-up. Secondly, I would like to know if there are maps available of Keystone Dam, in New Alexander, along with a contour map. I would also like information on where I could get equipment needed to make casting plugs in my area.

Any reply on any of these questions will be deeply appreciated. Keep up the good work. Thank you.

BILL ZIEGMOND
Vandergrift

1. We're glad to hear you find the fishing good. 2. Your Waterways Patrolman might be able to help you in this respect, but contour maps are seldom available for Pennsylvania lakes, so don't be disappointed if he can't come up with one. 3. Homemade tip-ups? We've seen so many homemakers, with so many variations, that we would suggest you go from angler to angler, next ice season, pick out a design you like best and make a pencil sketch of it. Every now and then we get a suggested design sent in and some would make you want to give up ice fishing! 4. Your Waterways Patrolman can undoubtedly supply you with the name of a tackle shop handling plug-making accessories. If not, write to The Angler's Supply House, 815 Railway St., P.O. Box 269, Williamsport, Pa. 17701, and ask for their latest catalog. Ed.

LIVERS AGAIN! . .

I have been eating fish livers for years.

DR. L. S. WOLFE
Emmaus

Doctor Wolfe's comment is obviously a response to John Ivanhoe's question regarding the use of fish livers for human consumption. What more can we say? Ed.

NEW "STOCKHOLDER"!

I have enjoyed your magazine very much and I have been reading it in my school library or borrowing it from a friend. I will be 14 years old tomorrow and I'm finally getting my own subscription. Enclosed is \$5.00 for three years and when that's ended, I'll probably get three more years.

DAVE SASCENZO
Pittsburgh

Dave, we're going to do our best to make it the best "fiver" you've ever invested! Ed.

STILL GOOD?

I have a 6 hp outboard motor. At the end of last season I had about two gallons of the oil and gasoline mix. Because of the gasoline shortage, I couldn't force myself to dispose of it—although the instructions for the outboard call for the use of *fresh* gasoline. Is it possible, without any risk, to use the old gasoline mixture this spring by mixing it with fresh gasoline and oil? If so, about what ratio of new and old mixture is advisable?

ROBERT A. COHEN
Hatboro

The question you ask is probably on many people's minds. With the present fuel shortage one doesn't want to dispose of this fuel—which has been the recommended practice. Fortunately, there are fuel additives on the market which guarantee (for one year) against fuel gum and varnish formations. Two of these products are Put-Away and Stabil and they are available at most boat dealers and hardware stores.

In order for these additives to be effective the engine should be run for approximately 10 minutes, which will insure that all gasoline in the fuel lines and carburetor has been treated. If your engine is water cooled, do not attempt to run it out of the water.

PAUL MARTIN, JR., Chief
Marine Technical Services

MORE ON FISH LIVERS

In the Leaky Boots section of your January issue there was a question from John J. Ivanhoe as to whether fish liver is edible.

Several years ago I was fishing in Lake Kipena in Quebec Province when a friend of mine caught a large fish which we were unable to identify. A man in a nearby boat told us it was a freshwater "Ling"

which was rarely eaten due to poor flavor and being very boney, so we released it. The next morning I related the incident to Barney Jawbones, an Indian from whom we were renting a cabin. He told us to bring them to him if we caught any more. Late one evening, as it was getting quite dark, I caught one of about five or six pounds. When I gave it to Barney, he removed the liver and discarded the carcass. The liver was quite large in proportion to the size of the fish and he apparently regarded it as something of a delicacy.

J. B. McMICHAEL
West Sunbury

Very interesting, J. B., and we thank you for the information. But, with the Susquehanna River teeming with small-mouth bass, walleyes, and muskellunge—and flowing right by your front door, what in the world were you doing in Quebec? Ed.

FOR CHANNEL CATS

Could you please tell me what is the best bait for catching channel catfish? We had the best luck with shrimp, but now we can't afford shrimp for ourselves, let alone for fish. Thank you.

RAYMOND TOMCZAK
Linesville

The most successful channel catfish fishermen I've ever met have used shrimp, but like you, Ray, I never felt I could afford to feed them to my family—much less the catfish! However, I fished alongside a man who pulled in two-footers right and left, using "cut bait"—chunks of suckers (any easily available fish will work as well) cut up into strips and squares and impaled on his hooks. He was having such success (compared to mine) that I withdrew in embarrassment! Ed.

Chances Are—

You have a fishing pal who isn't quite the fisherman you'd like him to be. He doesn't understand why you want to leave so early or stay so late. You spend more time explaining fishing to him than you do fishing! Is it worth \$2.00 to you for some peace and quiet?

Send him the ANGLER for a year. You'll be amazed at how a year of good reading will improve his luck and you'll have more free time for fishing! All we need is his name, address, and ZIPcode—and the two bucks, of course.

REPAIR TIP

Here is a tip you can pass on to the other readers. Too many fishermen throw away a fiberglass rod that was pinched or crushed in a car door, etc. Work fiberglass into the crushed part, using a little powder or resin to harden it. As it stiffens, work it into the shape of the pole. Use more powder or resin and lay away to dry.

ARTHUR T. HOWEY
Slatington

COMMON BOND

Would you believe it took me longer to find this pen than it probably will to write this letter? Seems my four children carried every pen in the house to school today.

Never wrote to the Angler before, but an idea keeps bugging me to do so. It all comes about from my past experiences in meeting new anglers while fishing streams, everytime the Angler is brought into the conversation. I really found a new fishing friend once he knows you read the Angler. He tries to help me anyway he can from his past experiences, and so forth, right down to road maps (drawn on lunch bags) on how to get there, and when, for the best fishing. I may never see this angler again, but we know we helped each other in some way although our paths may never cross again.

It seems the Angler is a drawing card or bonding between anglers. Therefore, could the Angler have emblems or patches of some sort for their subscribers to display on their fishing hats, coat, or trout vest to let another angler know he is interested in the welfare of fishing and his fellow man. The money from the patches could be used to help in better conservation and fishing throughout the Commonwealth. Food for thought.

JOSEPH E. MILLER
Pittsburgh

P.S. I fish better than I write.

You don't write too badly, Joe, so you must be some fisherman! We never knew such camaraderie existed among our subscribers—that's the spirit! If your idea has any flaw in it, it would be the prohibitive cost of the materials used in the making of the patches. We feel that your fishing license button will accomplish the same purpose.

Ed.

If You're Moving—

Your ANGLER will be delayed if you fail to advise us in advance. Send us both your old and your new address, include both ZIPcodes.

LOSE SOMETHING?

I live in North East, Maryland on the Susquehanna Flats. Actually I live at Red Point Beach on the shore of the North East River. I usually walk the beach in front of the house and find many interesting items of wood, metal and personal items (hats, boots, ammo belts, etc.). Well, a friend of mine, Gary Lewis, of Hatfield, Pa., found a fishing hat with Pa. resident fishing licenses dating from 1933 to 1956.

Numbers are

- 1933—234753
- 1935—223522
- 1936—222482
- 1938—328868
- 1942—335889
- 1943—388288
- 1948—444913
- 1956—464672

It must have floated down river or could have been lost overboard here in North East. Would you please find its owner and give me an address to replace it in its rightful owner's hands. I'm sure it is considered valuable to him.

EDWIN C. LEFTRIDGE
R.D. #2, Red Point Beach
North East, Maryland 21901

Very kind of you to bring this to our attention, Edwin. If the owner is one of our readers, you'll undoubtedly hear from him soon.

Ed.

(P.S. It might be interesting to see how many responses you get!)

PROBLEM WITH WADERS

I have a pair of chest waders that are light and comfortable. They were advertised as rubber but I cannot get a patch to stay on for long. Even vulcanized patches peel off in a short time. Can you tell me how to repair a 3/4" gash in the foot portion?

WILLIS RATZLAFF
Millersville

Suggest you go back to the manufacturer for advice, Willis.

Ed.

NOTES OF THANKS

Just a note to thank three men who gave me a great deal of help in planning a fishing trip to Cameron and Potter Counties. I sent a letter to Miles D. Witt, Regional Supervisor who not only sent me maps of the counties but forwarded my letter to Stanley Hastings and Kenneth Aley. These men in turn sent me more information on their respective counties. These three men went out of

their way to make my trip a success. Thanks again.

JOHN JOHNSON
Sutersville

John, you've proved a point we've been trying to get across for years—if you want specific information, seek it from the proper source. Many of our readers flatter us here in the Angler office by assuming that we have all the answers. The name, address, and telephone number of each of our Waterways Patrolmen is listed in your summary of Fishing Regulations and Laws. These men know every inch of their districts and can supply anglers with the facts. When the exact location of some "famous" stream is doubtful, we advise our readers to do exactly as you did, contact the Regional Supervisor—listed in the same place. We're happy that your trip turned out so well and our boys will be glad to know they helped.

Ed.

NOW HEAR THIS

I recently purchased a 1974 fishing license and find that the button (quality-wise) is not unlike many items produced in these times. In order to easily change it from hat to cap to vest, etc., I have inserted it in the clear plastic holder used in prior years. In this way it displays just as well and the danger of loss is minimized. This idea may be of interest to others.

J. A. SNYDER
Bethlehem

That's sound advice, J. A., and perfectly legal.

Ed.

A REEL PROBLEM!

Hope that you or one of your readers will be able to answer a question that to me appears "answerless."

I own an Airex Mastereel which is in need of repairs. Since the Airex Corp. has long since gone out of business, my question is, "Can anyone tell me where I might have this reel repaired?" I tried contacting the company with no results. Any information will be deeply and gratefully appreciated.

OWEN M. ROBERTS
Slatington

That does pose a problem, Owen, but perhaps one of our readers will provide us with the answer. Chances are, however, that for the price of parts and repairs, you might be able to purchase a good name brand reel for which parts and service will be available long after you and I are fishing in that Great Lake in the Sky!

Ed.

Taking A Closer Look

BY TOM FEGELY

A Kinship of Killers

It seems that every class of animals has a sinister family tucked away somewhere in its ranks. Snakes account for the reptile's evil reputation, toads fill the role for the amphibians, buzzards represent the bird world and the mammal clan lays claim to rats, bats and even (pardon the poetry) black cats. Few "witch's brews" were ever prepared without at

least one of these creatures as an ingredient.

The fish world is no exception. Few fresh water species have inspired more fables than the Pike family, especially *Esox lucius*—the northern pike. Inheriting similar reputations are its two cousins; the smaller one, *Esox niger*, the chain pickerel, and the family's giant, *Esox masquinongy*, the muskellunge.

Pennsylvania anglers seem to afford all three of these fish a bit more realism than did their European ancestors. To understand why they were so maligned, though, all one has to do is witness a solitary pike materialize from the water weeds and savagely attack a school of minnows or a duckling.

The northern pike is the most widespread of the kinship, being found throughout the Northern Hemisphere (except for the tropics). It is also the relative which has gained an infamous reputation for the entire family. Early naturalists, including Izaak Walton, believed that the pike grew from "pickerel weed" and was hatched by the heat of the sun. It has also borne legend to tales of "devil pike" which lurk in the backwaters of northern lakes, awaiting the chance to swallow both man and canoe in one massive gulp.

Although unable to live up to its mythical reputation, the northern pike does indeed strike terror to life in the waters in which it dwells. The same is true of the chain pickerel and muskellunge. Their prey is anything they can catch—including crayfish, perch, ducks, muskrats and on occasion, even each other! Slender and arrowlike, with large, heavily-toothed jaws, they closely resemble one another in appearance.

Generally speaking, the northern is greenish in coloration with bean-shaped spots along its side. The

A positive way to identify the muskellunge is by counting the sensory pores on the underside of the jaw. A northern never has more than five—muskies can have six to nine.



muskie has dark bars against a lighter body background while the chain pickerel gets its name from the pattern of chain-like markings decorating its slender body. But depending on water conditions and the size or age of the fish, identification by color and markings alone can be misleading. More than one angler has paid a fine for possessing a trophy "pickerel" that turned out to be an undersized pike. On the other hand, an occasional pickerel may be released by an angler in the belief that it is a short muskie or northern.

There are several accurate ways of separating the three and it is a good idea to ingrain them in your mind for future reference. The best identification method is to study the scale pattern on the fish's cheeks and gill covers. The PICKEREL is scaled on the *entire gill cover and the entire cheek*. The NORTHERN PIKE has scales on *half the gill cover and the entire cheek*. The MUSKELLUNGE possesses scales only on *half the gill cover and half the cheek*.

Another method of distinguishing northerns from muskies is to count the number of sensory pores (holes) on the underside of the jaw. The pike never has more than five on each side while the muskellunge may have anywhere from six to nine. To clinch an identification of the two, check the tail. If it's sharply pointed at the corners it's a muskie, rounded edges indicate a pike.

To further confuse things, in waters where both muskie and pike dwell and breed, a hybrid cross may result. One of these crosses, encouraged by man as well, is the Tiger muskellunge. Due to its rapid growth in lakes such as Beltzville in Carbon County, this northern pike-muskellunge hybrid is becoming

Another way to distinguish northern pike from muskellunge is checking the scale arrangement on cheek and gill cover. Entire cheek, but only half of the gill cover, is scaled.



Lakes which contain one or more members of the pike family are posted with charts which point out their distinguishing characteristics, make positive identification easier.

famous throughout the state. The fish differs from its two unlike parents in appearance of the lateral markings, possessing distinctive body stripes from which it derived its name of "tiger".

Although the pickerel is sometimes confused with its two larger relatives, more confusion is caused by its two smaller cousins, the GRASS and REDFIN PICKEREL (*Esox americanus vermiculatus* and *Esox americanus americanus*). Too small to be considered as game fish (the maximum size of the redfin is only 12 inches, the grass nine), they nevertheless confuse anglers unaware of their existence. Unlike the chain-like pattern of the larger pickerel, the grass and redfin pickerels have dark vertical bars on their sides.

Although the visual appearance of these two mid-get members of the pike family is similar, their range is more distinct. The REDFIN occurs east of the Alleghenies while the GRASS is found to the west. Where they do occur together, hybridization occurs.

Each of the "big three" members of the pike family, as well as the two smaller fellows, deserve individual "Closer Looks" and will be presented separately in future issues of the ANGLER.

There's more to being able to identify a fish than the satisfaction of just knowing what it is. Besides avoiding illegal possession of an undersized pike or muskie, the careful and immediate release of a fish may well mean the difference between its life and death. Identifying your quarry is as important to the angler as it is to the hunter. It's up to each individual to make it a personal responsibility.



BASS SEASON OPENS JUNE 15th

*Choosing the right tackle
is important when*

Outfitting for BASS

by Nick Sisley



If you have been thinking about taking up bass fishing in earnest, careful attention to this article and the accompanying equipment lists will insure that you are properly outfitted.

Depending on which type of fishing you like best, we have provided four separate categories. Perhaps some of you will eventually want to take up more than one bass fishing method.

The categories are spinning, spincasting, baitcasting, and fly casting. In each of these four categories we have suggested rod and reel combinations. In spinning, spincasting, and baitcasting, we have suggested medium weight equipment for average fishing, and heavier reels and monofilament, and "worm" or heavy rods for plastic worm fishing or for use when "horsing" lunkers out of snag-infested lairs. If you are going to be buying only one rod and reel to start with, you will want to stick with the medium weight, more versatile, rod and reel combination. Take up plastic worm fishing with heavier tackle once you've learned the basics.

Spinning or spincasting is suggested for those who are brand new to fishing. Baitcasting techniques are a little more difficult to master. However, this method is a very productive one, and challenging! Baitcasting is something that tyros with little experience can graduate to.—Later!

Beginner or not, don't sell ultralight spinning short. Under many fishing conditions it offers the most strikes because tiny hard-to-see lines are used. The lures are also small and, in most cases, they attract more bass strikes. Finally, once you've set the hook in past the barb, fighting your bass with a tiny ultralight wand becomes the most "fun" method of

fishing—but don't try to "horse" them in!

Fly fishing for bass can be great sport, and it can be done with a minimum of inexpensive equipment. The lures that produce best on bass are streamer flies, tied to imitate a minnow. Surface fly fishing for bass is the most fun. Under certain conditions, cork or hair poppers produce exceptional results, especially with largemouth bass.

If you are a fly fishing trout, it is extremely easy to make the transition to fly casting for bass. You probably already have most (if not all) of the equipment you need. If you are new to the sport of fishing, it is suggested that you take up spinning or spincasting for bass first and add baitcasting and/or fly fishing at a later date. Certainly fly casting techniques are not difficult to master, but there are countless basics you should learn about fishing in general first. The ease of spinning or spincasting lets you concentrate on these fundamentals.

The list of ancillary bass equipment is a longer one. As you become more enthusiastic about bass fishing, you'll add more and more of the items that have been suggested.

Pertinent comments have been made in the ancillary equipment list for your guidance. Some items are optional. If so, we have tried to state why. We've tried to compile a fairly complete, though basic, list. Perhaps other fishermen will want to add additional items.

When it comes to buying any fishing equipment, knowledgeable experts have found that it always pays to buy quality. Purchase the very best rods, reels, lines, lures, etc., that you can afford. Keep a sharp

continued on next page

Outfitting for Bass

continued from preceding page

lookout for sales—many times top quality fishing equipment can be purchased at reduced price if you keep your eye out for newspaper advertisements.

What are some of the quality features that you should look for in fishing tackle? In spinning reels, stainless ball bearings usually mean that the reel is top quality throughout. If the manufacturer goes to the trouble and expense of using stainless ball bearings, he usually goes to other manufacturing pains and quality control procedures to insure that his product is excellent.

If you are looking for a quality closed face reel (spincast), look for a star drag.

In a baitcasting reel, look for stainless steel ball bearings again and a star drag—both mean quality. A bonus would be corrosion resistance, high speed retrieve, push button free spool, silent level wind, multiple disc drag, centrifugal brake to reduce backlash, etc.

The beginning fly fisher after bass can save money when it comes to a fly reel. There is seldom any need to purchase an expensive one—because the reel is used so little in fly fishing for largemouth or smallmouth—it's but something to carry your line.

When it comes to bass rods, whether they be spinning, spincasting, baitcasting or fly, turn your attention to the guides. They should be made of quality materials—at the very minimum, hard chrome stainless, and there should be "lots" of them. The better

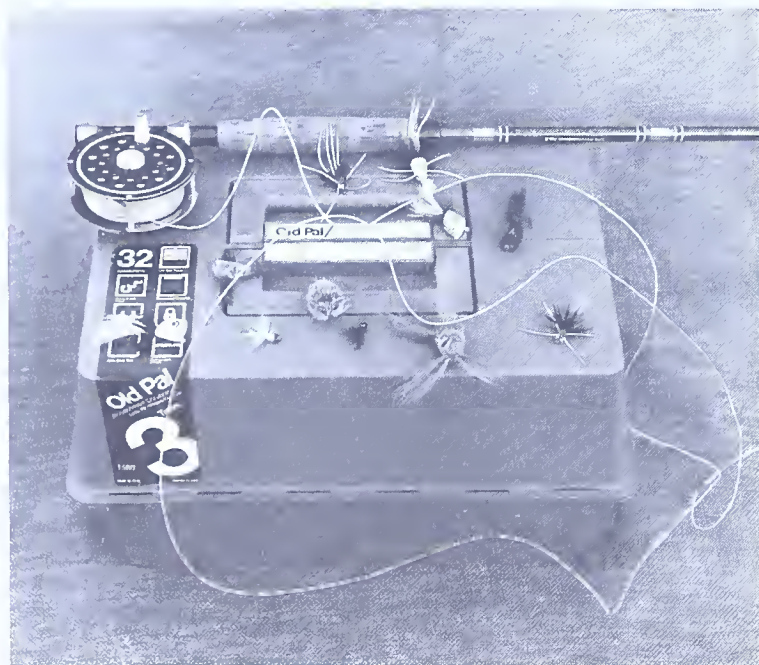
tiptops, stripping guides and/or the regular guides are made of more abrasion resistant materials like carboloy, tungsten carbide, aluminum oxide, and other hard materials characterized by individual company trade names. Get good guides and lots of them, and the other necessary quality features in a rod will be inherent.

There are many good monofilament fishing lines on the market today, but unfortunately there are also a lot of mono lines that aren't worth thinking about! A good common denominator in quality of lines is price. If you skimp anywhere else on your purchase of fishing equipment, *don't, don't, don't* skimp on the buying of top quality line. When fish are lost, poor line and poor knots are the reason 80% of the time (author's opinion). That's a sobering fact; think about it. Bass and all other fish species are lost almost entirely because of these two reasons. Buy good line, and while you're at it, learn to tie knots the proper way so they won't break an otherwise strong line.

Cheap lures are another way to insure losing lots of fish. This is especially true when you've hooked a trophy size bass. I'm talking about the lunkers that, on seeing their first jump, you decide exactly where they will be placed on your den wall! If you don't have a good sturdy lure, it's not likely a big bass will stay on long.

What should you look for in a lure? Note the hooks and how they are attached. If they are sturdy, quality hooks, affixed in a manner that you know they are not going to come loose, you can depend on the fact that the manufacturer has put a great deal of effort

Right: Following the author's recommendations, you'll want an assortment of lures, of varying weights and of different running depths. Below: Taking a husky bass on a fly rod is a thrill second to none! The hair bugs and poppers will add many a largemouth to your stringer.



and thought into that particular lure. If a lure has good hooks, and they are attached right, you can also depend on the lure's action.

An important point to remember when you are buying plugs, spinners, spoons, etc., is to match their size to the rod/reel combination you intend to use them with. There is no sense buying a beautiful \$3 plug weighing $\frac{3}{4}$ of an ounce, then try to use it on an ultralight outfit. Conversely, you'll get very little casting distance (or fishing success) when matching a $\frac{1}{8}$

ounce spinner to a baitcasting outfit and 20 pound line!

Bass fishing craze is becoming increasingly popular. Whether your overall fishing experience is limited or not, there is no reason why you shouldn't join in on the bass fun. Whether you are after small-mouth, largemouth—or both, it's a sure bet that bass fishing can provide you with some of the most productive and enjoyable fishing sport you've ever enjoyed!

EQUIPMENT CHECK LISTS

Basic

Ancillary

1. IF SPINNING for BASS is your chosen method, you'll need:

- a. Medium size spinning reel—two spools
 - (1). one spool with 6-10# test mono
 - (2). one spool with 15# test mono
- b. one medium weight spinning rod for the lighter line
- c. one "worm" or heavier spinning rod for the heavier line (optional)
- d. ultralight spinning reel (optional, but a very good idea)
- e. ultralight spinning rod (optional, as above)

2. If SPINCASTING for BASS is your chosen method, you'll need:

- a. one spincast (closed face) reel with 6-10# test mono
- b. one medium action spincasting rod
- c. one spincast reel with 15# test mono (optional)
- d. one "worm" or heavy spincasting rod for heavier line (optional)

3. If BAITCASTING for BASS is your chosen method, you'll need:

- a. one baitcasting reel with 12# test line
- b. one medium action baitcasting rod
- c. one baitcasting reel with 15-20# test line
- d. one "worm" or heavy baitcasting rod for the heavier line

4. If FLYCASTING for BASS is your chosen method, you'll need:

- a. one 8-9' fly rod
- b. one single action (or automatic) fly reel
- c. a floating fly line to match your fly rod (level or weight forward line)
- d. backing line (enough to fill reel spool with fly line attached)
- e. lures
 - (1) streamer flies
 - (2) hair poppers
 - (3) cork poppers

1. Hip boots

2. Waders (optional—can be instead of or in addition to hip boots)

3. Inner tube—used in lakes to reach hard to get to BASS lairs (consider optional—limited value)

4. Canoe (optional, but greatly increases the water area you can fish)

- a. small electric motor (or gasoline) adds even more mobility

5. Cartop boat (same as above)

6. Full BASS boat (optional—limited use)

7. Bait container

8. Minnow seine (optional—bait can be purchased)

9. Tackle box (buy the biggest you can afford)

10. Fishing vest (a most useful item)

11. Lures (you'll be adding lures for the rest of your life, but consider the following as basic guidelines when making original purchases. Select a few of each in sizes to match your rod/reel combinations)

- a. sinking plugs

- b. top water plugs

- c. shallow running plugs

- d. deep diving plugs

- e. plastic worms

- f. jigs

- g. spinners

- h. spoons

12. Knot tying booklet (learn the ones you need and keep this booklet in your tackle box for reference)

13. Spare line (a very important item)

14. Nail clippers

15. Needle nose pliers

16. Pork rind (makes most BASS lures better fish takers)

17. Hook hone

18. Assorted hooks, swivels, split shot, sinkers, bobbers, threading needles

19. Landing net

"Foul Rift"

by RICHARD K. TAYLOR

Uncle Joe immediately stopped paddling when he heard the roar of water over shallow rock on an unfamiliar part of the Delaware River. He is experienced in a canoe and doesn't normally get upset by the sight of boiling rapids. But he knows that white water can be dangerous, and so he asks advice or looks over a strange stretch from the shore before continuing downstream.

He spotted a fisherman along the bank and shouted over, "What's that rapid down below?"

"Foul Rift," replied the angler, intent on his casting.

Uncle Joe had heard that Foul Rift's reputation was as bad as its name, but he wanted to make a try. He swung

closer to the bank and called again, "Could you tell me what it's like?"

"Difficult," said the fisherman.

Joe pulled his canoe closer and asked, "How difficult? Difficult in what way?"

"It's *very* difficult," came the reply.

The current was tugging Joe's canoe downstream. He had to backwater to stay even. "Could you be more specific about the difficulty?" he urged.

"Difficult to get the bodies," came the answer.

"The *bodies*?"

"Yes," said the angler. "There's this rocky ledge under the water. The canoeists' bodies get stuck under it. It's *difficult* to get them out."

It didn't take Joe but a few seconds to beach the canoe and to start figuring out how to portage around "Foul Rift"!

*Some words to make you
wiser, from Dick Kotis ➔*

A BASS Man who fishes Pennsylvania

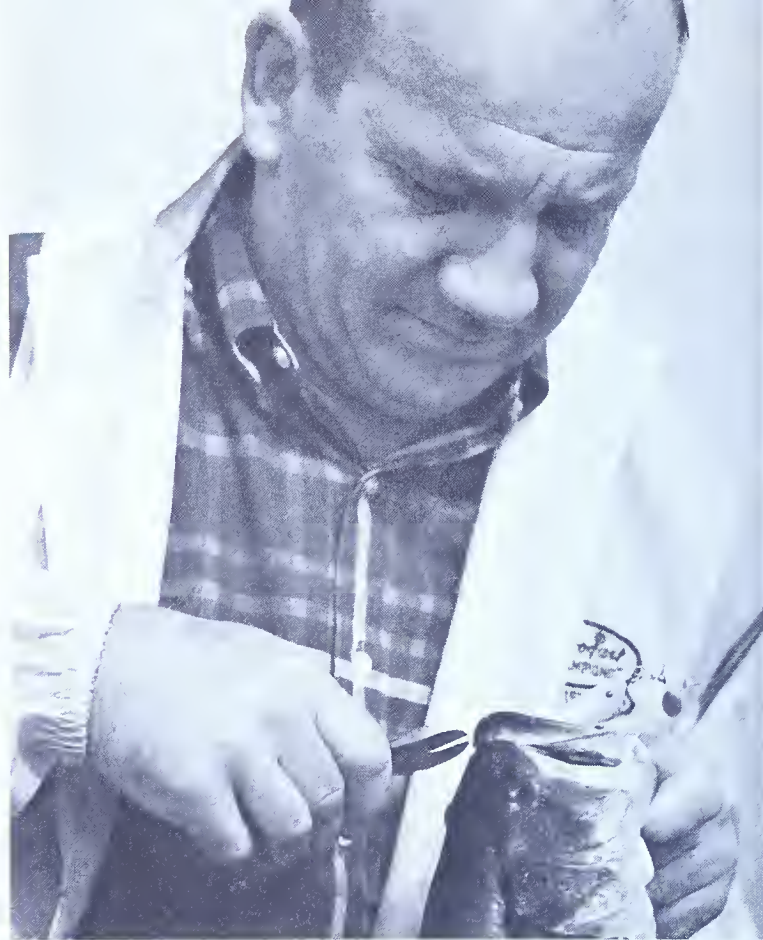
by HOWARD A. BACH

In Pennsylvania, which offers a wealth of good fishing—for a wide variety of fish, it is not surprising when a particular species receives less attention than it deserves. When that species is the largemouth bass, such inattention is sheer folly. Except for the bluegill, no fish offers such widespread angling pleasure and excitement for so many Pennsylvania anglers as does the largemouth bass.

The scrappy largemouth bass is widely distributed across our state and is usually located closer to our homes than most other varieties. And great skill is not a decisive factor in catching bass, for they cooperate reasonably well, and can be taken with a variety of methods and equipment. Nearly any approved angling method will work, or fail, at a given time, lending a challenge to the sport that adds to its intrigue.

Bass fishing equipment varies from the simple outfit of the schoolboy beginner to the most expensive fishing machines to be found in fresh water: the completely rigged bass boat. Yet, any fisherman with modest tackle can tie into a trophy bass, giving all men equality in the eyes of the fish.

Although we all start equal, a study of bass, and the equipment used to pursue them, will give you an edge in the sport. To gather expert information on the subject, we interviewed Dick Kotis, President of Arbogast Co., Akron, Ohio, and a nationally known bass fisherman. Dick fishes 180 days per year, and makes no bones about this preference for bass fishing. Many of the country's leading bass men have fished with him, and there is hardly a well known bass lake with which he is not familiar. During a recent two day fishing trip to the Allegheny River near Oil City, we quizzed Dick about fishing in general,



and bass fishing in particular. His answers will be of interest to every bass fisherman, whether beginner or expert.

Q. Dick, why are you so partial to bass fishing?

A. Bass fishing offers a greater challenge. Given the variety of water conditions in bass lakes, cover, structure, the many factors that affect bass fishing, and the inconsistency of those factors, bass fishing offers a constantly changing challenge.

Q. How smart are bass? Smarter than trout?

A. Very, and yes! Trout are warier, have better vision, and live in clearer water, so they spook easily. Bass, on the other hand survive by instinct and experience. Hook a bass, and he will head for a submerged root, stump or rock to snag your line and win his freedom. Also, you will not hook him a second time on the same lure. In fact, studies made at a Midwestern university proved that bass will avoid lures on which they have been previously caught.

Q. Of all the bass senses, which does he rely on most for finding food?

A. *Hearing*, because much of the time he is in water where he cannot see well, so must rely on his hearing. I would rate *sight* as second, and *smell* as third.

Q. Do bass have a strongly developed "sense of presence," that requires them to be next to something whenever possible?

A. Yes. This stems from birth, and the need to be close to a place to hide. From the first time its father, who has been protecting it, tries to "have it for dinner," the young bass learns to hide. We once had some bass in a tank at a sport show. They were

scattered around the tank until we placed a broomstick in the tank. The bass immediately lined up behind the broomstick to take advantage of the little cover it afforded.

Q. We think of largemouth in ponds or lakes and smallmouth in rivers. Can rivers be productive for largemouth?

A. They can be, but not generally. Exceptions are wide, slow moving rivers in flat country. But where conditions are good for smallmouth, the more aggressive smallmouth will run off the largemouth bass.

Q. What is the effect of light on fish?

A. The amount of light, and a related factor, water turbidity, has a pronounced effect on fishing. Fish cannot close their eyes, as they have no eyelids. Also, their eyes do not react to light, i.e., dilate or constrict, so they are very sensitive to light. They avoid bright light. In clear water you should fish the shady cover, or fish at night. In very clear water, the fish will usually be deep to avoid the light.

Q. What is the effect of weather on bass fishing?

A. Very dramatic. Weather and its effects on pressure, temperature, water turbidity, oxygen content, and availability of food are very pronounced. A rain, after a hot spell, will get them feeding, but a front will usually drive them down. There are no hard and fast rules, except that bass seek their comfort zones. These zones are found where the temperature is right and the light dim.

Q. Do you use a thermometer to seek out these zones?

A. Yes, I use an electronic thermometer, which gives me instant readings at any depth. This is especially important in the large reservoirs and deeper water where temperature varies from place to place.

Q. How about fish finders? Do they give the fisherman an unfair advantage?

A. No way! When fishing, you are going into the fish's environment, and anything you can use to learn about that environment is a help. The fish locator is just another tool and, used right, can help, but it can never give the fisherman an unfair advantage.

Q. For a person buying his first fishing outfit, what would you recommend?

A. Definitely a spincast outfit, which is the easiest for a beginner to use and master. And I would recommend that they buy the best they can afford. This does not mean the most expensive, for even the best is inexpensive; there is not a great price spread between the best and the mediocre.

Q. What lures would you recommend for that beginning bass fisherman?

A. He should have a couple plugs, one a surface plug like the Jitterbug, and a floater-deep diver like the Mud-bug or Bomber. He should have a spinner-type like the Shyster or Mepps, a spoon, like the Daredevil or Johnson spoon, and a jig. Finally, he should have a plastic lure like a worm, beetle, or lizard. Ten or twelve lures, in those six varieties, will cover most fishing situations.

Q. Where can the beginner learn the basic fishing skills?

A. I believe you have an excellent system of state sponsored fishing schools for beginners in Pennsylvania. Aside from that, subscribing to several magazines can be helpful, and most libraries have excellent basic books on the subject. A sports show, where manufacturers are displaying and demonstrating is an excellent place to ask questions and get first class help from experts on the subject.

Q. When you take a child fishing, what do you do to help insure a successful trip?

A. I take him for bluegills. The first rule is to have him catch fish, and bluegills are the most cooperative fish. Take some worms, some maggots, some ice jigs, a bobber, and a spin casting rig. Teach him how to use the spincast outfit, and have him move the bobber slightly to impart action to the lure. This approach usually works for the beginner.

Q. With all the new fishing lures coming out, why do the old baits continue to sell so well?

A. Because they consistently catch fish, and because experienced fishermen will regularly recommend them to beginners.

Q. We see many cheaper imitations of well known lures. Do these imitations catch fish as well as the originals?

A. No, primarily because they are not balanced as well. A good lure must maintain the proper attitude in the water. A poorly balanced lure will not. For instance, a good spoon is forged, with a varying thickness to impart the correct balance and action. A cheap copy of the spoon will be a stamping, with the same thickness throughout, and simply will not perform the same.

Q. Will larger lures catch larger bass?

A. Yes, if you are fishing for trophy bass. However, this is a generality, and a one-eighth ounce lure could catch a record bass tomorrow! In fact, that is the beauty of fishing, for only in fishing could a rank beginner score a major triumph like a record fish. As to lures, if you only want to catch bigger fish, use bigger lures. Otherwise, smaller lures are preferred.

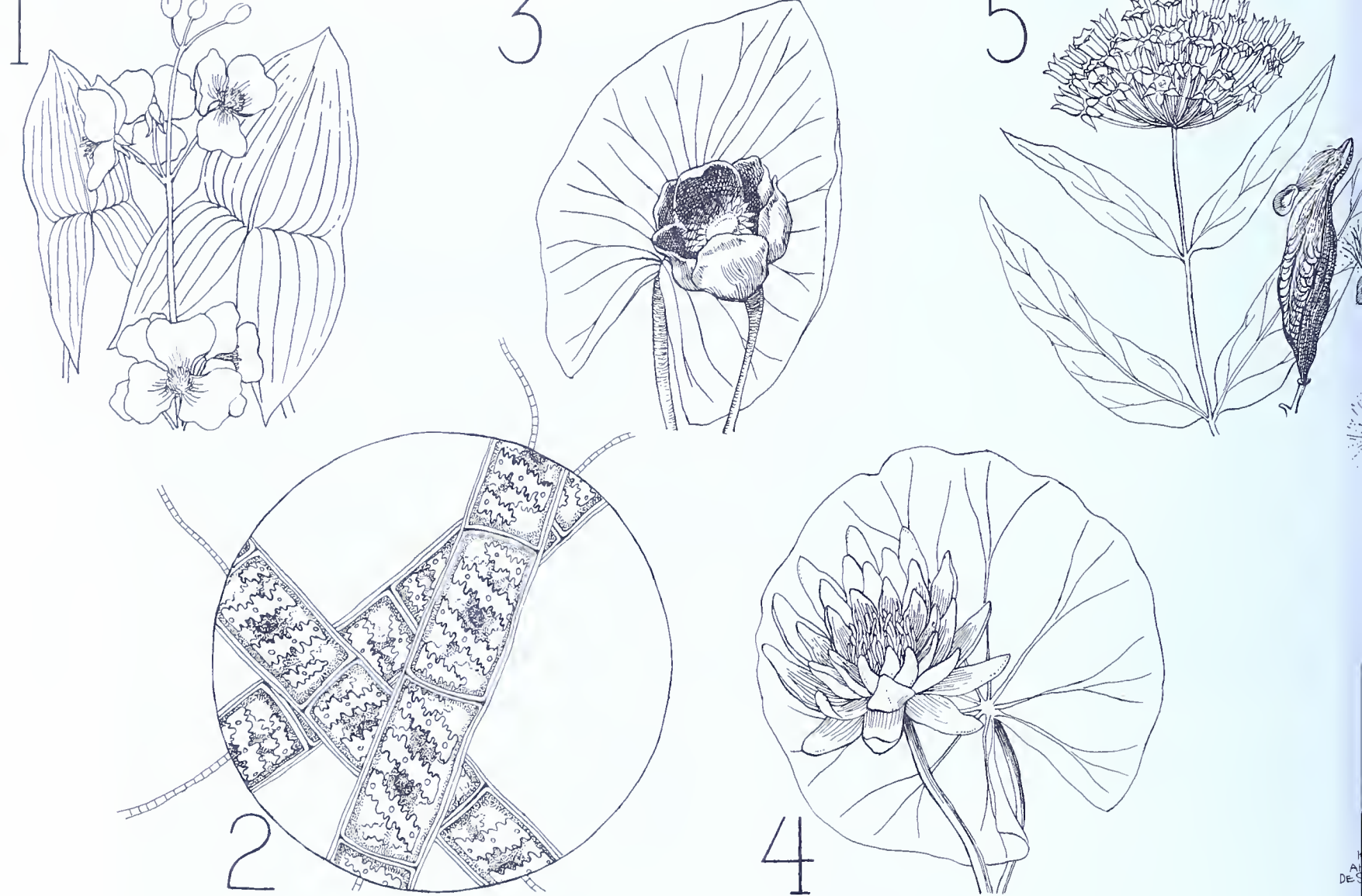
Q. Do you expect the plastic worm to perform as well in the north as it has in the south?

A. No. First, we are not fishing the same type of water. We have shallow, weedy lakes; they are fishing larger, deeper impoundments. Actually, in the last year tournament fishermen have reversed the trend to the plastic worm, and are now using spinner baits and floating, deep-running lures. Small worms, beetles, grubs, and combinations of lures with soft baits are also coming on strong.

Q. What has been the effect of bass fishing techniques on the design of new equipment?

A. Lighter equipment is now widely used. The new tackle is easier to use due to better guides, free spools, ball bearings, etc. A recent development is faster retrieve reels to permit buzzing of spinner

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Plants Anglers Meet

Part III

by Carsten Ahrens

Plants are among the best of friends an outdoor person can make. Animals may become too familiar or may retreat when you approach, but plants are rooted and don't flee or hide no matter how objectionable you are. Really get to know the many and varied species, usually characterized by root, stalk, branch, flower, and seed, and you'll have many delightful friends in any state where you chance to meet them.

True, there are a few, particularly vines, that may unintentionally trip you; some, with hooks of many kinds, may seek your aid in the dispersal of their seeds; a few are not to be touched or tasted; but the majority seem to have no other ambition save to make the world a more attractive place because they grew, flourished, and flowered on it. Here are more Pennsylvanians the angler should recognize:

1. The ARROWHEADS (*Sagittaria latifolia* . . . and others) make up a large group of water plants most of which have leaves shaped on the order of the Indian arrowhead. They are found in still water or along sluggish brooks. In addition to the shape of their leaves (in some species very wide, and in others as narrow as shoestrings) they are distinguished by rounded-petaled white flowers that grow from the



main stalk in whorls of three. Each flower has three petals and three sepals. Both their growing season and their flowering season are long, from late spring until the frost cuts them down in the fall.

2. **WATER SILK** (Algae) grow in all the waters of the world. Hundreds of species of these one-celled plants, or colonies of them, are collectively called the algae. In fresh water they are given names like water silk, pond scum, frog spittle. Each is a microscopic organism, but as a group they are most important as food in the life cycles of many animals. Pond silk forms great masses of the slenderest filaments that sink to the bottom on cloudy days but rise to the surface during sunshine. They are free-living plants, so carry on photosynthesis. In this process they not only manufacture food for themselves, but throw off considerable oxygen which is used by aquatic animals in their respiration. They can be found any time during frost-free months where the temperature in the pond or lake makes growth possible. Often, unfortunately, pond silk grows into an unsightly scum, mantles the surface, and becomes a pest, even a pollutant.

3. The **SPATTERDOCK** (*Nuphar avenda*) is the

common yellow pond lily we boys considered as the poorest relative of the dainty white water-lily. We called it a cow lily. It is so lacking in the grace, the many-petals, and the perfume of its lovely cousin. Its coarse, oval leaves, wide-notched where the stems attach, don't rest on the water but often grow up in the air as do the six, thick yellow sepals of the globular flowers. Each blossom has a curious arrangement of its parts for the large, disk-like pistle fills the chalice, becoming available to pollen-bearing insects as soon as the flower begins to open. The plant is not particular about its habitat, any sluggish stream or polluted pond will do. The plants have a long growing season, appearing in May and lingering often into October.

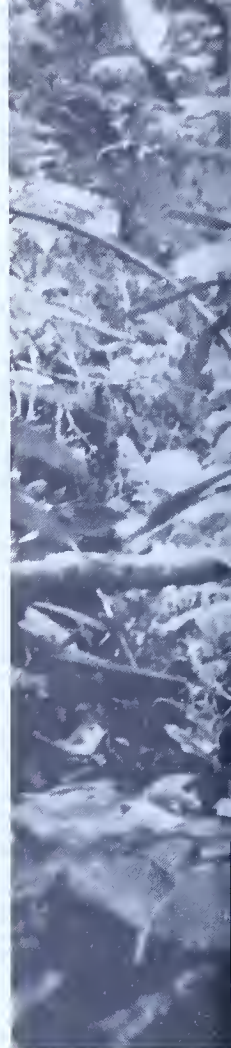
4. The **FRAGRANT, WHITE POND or WATER LILY** (*Castalia odorata*) is one of the most perfect of all the flowers an angler is likely to meet. One wonders how a plant with its rootstock buried in inky muck several feet below the surface can send up a bud encased in green sepals that open to disclose a many-petaled flower, so white, so perfect as though carved from alabaster. Added to this is the magic of the flat,

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*Small streams provide
challenging early summer
native brook trout fishing*

"Mountain Jewels"

by Gene Montgomery



The morning burst forth in a blaze of glory. First a pink haze on the horizon, slowly turning to a burnt orange, and moments later old Sol showing his crown above the eastern slopes.

Herb and I were ascending a ridge overlooking VanScoyc Run when the first rays of sunlight found us. We had been up since 4:00 a.m., ate breakfast hurriedly, and were on our way to the brook by 4:30 a.m. We had a little over a mile to walk through Whippoorwill Hollow, and over Rock Ridge to reach the stream from our uncle Jed's cottage. Both of us carried an ancient fishing rod, Herb's steel telescope rod with more bends and twists than a dog's hind leg, and mine a once-proud bamboo fly rod, about 5½ feet long, and held together with iron glue, twine, and rubber bands.

As we climbed the ridge a crow bid the day good morning, and a gobbler high on the western slope, soon followed suit declaring his realm to all the world. A new day was born, and the forest came alive with the songs of its many feathered guests.

This all took place during the early days of June, 1945, at VanScoyc Run, a small mountain brook east of Tyrone, Blair County, Pa.

The main performers two twelve year old boys, cousins, supporting cast, "hemlock" trout, or, if you wish, brook trout.

We hurried from the ridge to the valley bottom and the brook, anxious to wet our lines. Previous ex-

perience taught us not to *charge* a brook, but rather come to it gently. These mountain trout will spook at the slightest vibration on the bank, or shadow on the water.

Herb said he would move downstream about a half mile and begin fishing. We agreed to meet later at a scout camp about a mile downstream from my starting point. He was soon out of sight, I removed a tobacco can from my hip pocket, opened it and shook the contents onto the moss bordering the stream. A number of red worms emerged, and I selected what looked to be the largest, and juiciest and returned the balance to the can. With hands trembling from anticipation, I threaded the worm onto my #10 hook, crawled to the edge of the brook on my belly, placed the worm in the white water at the base of a small water fall, watched it move off and disappear under the bank. It was no sooner out of sight till there came a sharp strike, I set the hook and up danced a beautiful, bespeckled "mountain jewel," flashing colors of red, green, deep blue, orange, and pure white. What a fight he put up, showing the heart of many fish ten times his size! I played him for several minutes and when he lay on his side exhausted, lifted him onto the bank, admired him for a moment, and then placed him along the length of the cork on my rod handle, on which I had a mark 6½" from its butt.

He was one inch too short. I placed him in the



Wear dull clothing and never approach a small brook standing erect—even your shadow will spook these wary mountain trout.

brook at the edge of a pool, he rested for a moment and then shot off into its depths.

I continued downstream in this manner, fishing each likely pool and soon ran out of worms. I caught over a dozen trout, but had only three in my old creel—and none of these measured over eight inches. Mountain brookies seldom reach a greater length than this. But, what these trout lack in size, they make up in fight, beauty, and are a delight to the taste buds. They are always anxious to strike your offering, whether it be live bait, flies, or small spinners.

My next job was gathering bait, which was not too difficult. These mountain streams abound in cased caddis nymphs, and can be found by the hundreds at the quiet edges of pools. I gathered several dozen nymphs, replaced my bait hook with a #14, stripped the case from the nymph, and passed the hook through one end of the worm, letting the bulk of its body dangle. I moved on to the next pool, approached it on all fours, made my drift, and was soon tied into my largest brookie of the day, a beautiful eight incher.

When I reached the scout camp, Herb was sitting on the bank of the brook, chewing on young birch bark sprouts, with his bare feet dangling in the stream. I joined him in these pleasures, and after a bit we lay our catch on the ever-green moss bordering the brook. What a beautiful sight, nine sparkling

brook trout bedded on a deep green velvet and framed with the delicate lacework of fern.

It was about 9:00 a.m. and we ate our peanut butter sandwiches which were smashed as flat as the wax paper covering them! A hip pocket isn't made to serve as a lunch bag. Discussing whether to quit or continue fishing, we decided on the latter and walked several miles upstream to the headwaters of the brook. It was tough fishing, with thick patches of rhododendron growing to the edge of the stream, and so dense it blotted out the sun.

The rewards of fishing small mountain streams are many: fast action with light tackle, indescribable scenery, solitude (very seldom do you run into another angler), cleanliness of the streamside, no beer cans, cigarette wrappers, or other litter.

We caught many more brookies, but bagged only six more, for a total of fifteen for the day. We reached camp at about 5:00 p.m., Uncle Jed had cabin fried potatoes, fried ham, and hot biscuits ready for supper. What a delight for two famished boys. We put the brookies on ice, cleaned up, and sat down to a meal fit for a king.

Lying in bed that night, listening to the lament of two whippoorwills drifting from ridge to ridge and reviewing the days adventure, filled my young soul with never dying love for the hills, streams, and the precious jewels within their bosom.



Left: John Kauffman holds brass eyes used in fishing sinkers which that old converted milling machine turns out at 500 per minute. Right: Mr. Kauffman shows a cast iron mold, top, and the original pattern done in cherry wood, bottom. Far right: Clair Hartz gets a mold ready for shipment to distant Australia.

Pennsylvania's Pioneer Sinker Mold Maker

by Brooke Focht

Fortunate, indeed, is the person who can combine a hobby with his means of livelihood. Such a lucky individual is 82-year-old John J. Kauffman of Shillington, a Reading suburb, who has been manufacturing and selling cast iron fishing sinker molds for the past 40 years.

Kauffman, whose looks and spryness belie his years, is quietly proud of the fact that he has no competition in his field. His fishing sinker molds, made of the best grade cast iron and machined to fit tightly together so that the sinkers come out clean, are the best commercially made molds on the market.

Mail orders for Kauffman's molds come in daily from all over the world and hundreds of the molds have been mailed to such far-off places as South Africa, New Zealand, Ireland, Canada, Alaska and Hawaii.

Back in 1934, Kauffman who then lived in Kenhorst, a Reading suburb, was a 42-year-old tool and dye maker who had lost his job at the Reading Hardware Co. because of a Depression lay-off.

So he opened a small workshop in the basement of his home, called it the Reading Instrument Co., and eked out a living making micrometers and other measuring instruments.

Kauffman's hobby was fresh and salt water fishing and like many men of his day he made as much of

his own fishing tackle as possible in order to save money.

One day Kauffman carved out his first pattern for fishing sinker molds. The resulting sinkers were so excellent for fishing that acquaintances soon asked Kauffman to make them similar molds. Within a short time he had made molds for several dozen local anglers and decided to broaden out into the sinker mold making field. He placed an advertisement in the old *Hunting & Fishing* magazine and within weeks received mail orders from many scattered states.

That first year, Kauffman recalls, he sold about 400 sinker molds. Within two years he was making a "quite decent" living with the sinker molds and stopped producing measuring instruments. He never did change the name of his company, though. Today, Kauffman estimates, 100,000 of his fishing sinker molds are in use throughout the world.

During World War II, Kauffman turned out machined parts for defense plants in his basement shop. In 1945, he purchased the former Liberty Dairy property at 207 State St., Shillington. He lives in a large house with his shop in the former dairy building in the rear.

Kauffman and a helper, Clair S. Hartz, work six days a week turning out fishing sinker mold pat-



terns and such allied equipment as brass wire eyes and swivels for sinkers. The only casting done in the small, immaculate machine shop is *experimental*. All the patterns made there are sent to the Safe Hardware Co. in Lancaster for casting. Kauffman has 45 different fishing sinker patterns on hand in his shop.

There are five steps in the production of the cast iron sinker molds. First, Kauffman uses a milling machine to carve out a pattern in cherry wood. The wooden pattern is then sent to the Safe Hardware Co. brass foundry in Lancaster where a bronze casting is made. The bronze casting is then sent back to Kauffman who "finishes" it by removing all excess metal. The finished bronze casting is then sent to a Cleveland, Ohio, firm where an aluminum casting is made. The aluminum casting is then sent to the Lancaster foundry where cast iron molds are made. The cast iron molds are then sent to Kauffman's shop where they are finished by the two men and stored until receipt of mail orders.

Hartz, in addition to his other shop duties, takes care of mailing the molds. His wife, Margaret, handles the firm's office work.

While still located in Kenhorst, Kauffman built a machine which turns out 500 brass wire eyes for sinkers per minute. He and Hartz operate six of these

converted milling machines when the shop is going at full capacity. Brass wire is automatically fed from a roll into the machine and is bent and cut in one quick operation, the finished eyes being thrown into a container at the other end of the compact machine. These brass eyes are sold to commercial fishing sinker and lure manufacturers throughout the United States. Kauffman estimates that he has produced 225,000 pounds of the brass eyes since he perfected the machine.

Kauffman, born Oct. 1, 1891, at Gowen City near Shamokin, Northumberland County, was one of 10 children. The family moved to Reading in 1895 where John completed the eighth grade. He first began working as an office boy at the Reading Hardware Co., later learning the tool and dye making trade there. He's very proud of his capacity to still do a hard day's work.

A widower, Kauffman lives alone and does most of his own cooking. His family consists of two married daughters and a granddaughter. He ruefully admits that he is too busy, these days, to do much fishing! In his younger days he was an ardent sucker, carp and bass angler in Berks and Lancaster county waters.

Kauffman wears spectacles only when driving and has driven 52 years without an accident.

*Although you might be outfished
and unnerved by your small-fry,
give them a day of their own!*

Take A Kid Fishing?

by LARRY SERVAIS



There are two schools of thought about taking one's young offspring fishing. One rather nobly says, "Take a boy fishing today." The other says, "Take the kid fishing and throw the little stinker in the crick."

I agree with both statements, depending on what kind of a trip it is. To get right down to the meat of it, don't try to take kids along on what is understood to be an adult fishing trip. That's a fast way to lose your old fishing buddies. Take kids on separate trips.

This distilled bit of wisdom is the result of years of comedy, tragedy, and drama that attached itself to innocent fishing expeditions.

That unqualified statement, "Take a boy fishing today"—some veteran trout fishermen claim that the saying was originated by a golfer who didn't know a fly rod from a lightning rod.

But that fine sounding slogan can be a bear trap to the uninitiated, especially as forensically deployed by the little woman. She thinks that junior should be introduced to the noble art of angling, and possibly you're a bit selfish if you don't include him on the trip. Of course this also gets him out from under her feet for the day.

So your vision of a quiet day on the stream with a

few fishing pals has a new dimension added, little Bobby. You then spend most of the day seeing that the little urchin doesn't drown or get lost in the woods.

Or, some other member of the party may turn up with his leering offspring in tow. He starts rummaging in your creel when you forget to keep an eye on it, or he sits on your sack of lunch that you have tossed in the back seat. On the way up he keeps asking when you're going to get there, and when you get there he begins asking when you're going to start back.

He gets hold of your mosquito spray and starts emptying it at the shrubbery; he bumps over your last bottle of beer after you have had just one good drag out of it. You're working over a rising trout, and make just the right cast, when he pops out on the stream bank spooking the fish! Or, you slip a little way downstream to a quiet pool where you can usually hook into a good trout, and there he is skipping stones over the water.

I've really never thrown such a kid in the creek, but I have spent a lot of time hoping that he'd fall in, and sometimes he did. On one trip someone's juvenile addition developed an earache, and the trip

had to be chopped off. Why his ear would hurt less at home than in the vicinity of a trout stream I could never understand.

Being considerate and unselfish, the earmarks of a true trout fisherman, I began taking my own kids fishing when my cronies weren't able to get away. But I learned fast not to expect to get any serious fishing of my own on these trips.

On the first "strictly kid trip" I found them a place next to a quiet hole in the stream, rigged their rods, and then went downstream a few hundred feet. Before I could tie on a fly there were shouts for me. One of them had a snag. I took care of it, and trotted back to my rod. Before I could get a cast out I was summoned again. Another snag; then a tangled line. Then the can of worms fell in the stream. I had a path worn through the brush! About the seventeenth shout summoned me because one of them had caught a nine-inch trout, the total bag for the day.

Some of these excursions can be rough on your constitution. On one of these noble trips I had an eight-year old and one of eleven in tow. We took a trail down to a small brush creek that flowed for miles through a wild area. I instructed the older son to fish ahead slowly, and we would follow.

We had started late, and after an hour of poking along, looking for places to drop a line in the water through openings in the brush, releasing snags, and putting on new hooks for my young pupil, it was sunset—time to start back. I gave a few shouts and a few blasts on a whistle, but no answer from the downstream fisherman.

We started after him, pushing brush, and letting go with a whistle each hundred yards. I tried to hurry, but had to wait each few minutes for the eight-year old to catch up. Trying to catch up with one kid and keep from losing the other finally had me in a lather. After a mile of this we finally overtook our fisherman. I was mad, and gave him a bawling out. But he was unperturbed, merely complained that the stream I had picked had so few holes deep enough to fish.

By this time dusk was settling fast. We stumbled back upstream, and although I was sure we had missed the trail leading out to the road we finally came to it. I wondered then if I shouldn't stick to lake fishing on these kid trips.

On a later trip with this rover boy and his older brother we pitched our tent on the bank of a favorite fly stream. The results of a bit of late afternoon fishing were nil, but I turned over a trout that looked as big as a weight lifter's arm. I couldn't raise him again, but I carefully marked the spot where I would drift a fly—the first thing next morning.

The next morning when the eastern sky was red, just before sunrise, I was awakened by shouts down by the stream. I took a look over the bank. There were the two kids swimming in that lovely deep hole I was going to fish. "The air is cold, but the water

isn't bad once you get ducked," they announced.

I have also taken daughters fishing, but with a different kind of traumatic result to a trout fisherman's delicate soul. In this case I at least got some undisturbed fishing.

On the first of these "take-a-girl-fishing," trips we parked the car near a bridge on a little dirt road. Just below the bridge was the deepest hole in the stream. I suggested that she sink a worm in this hole and just stay there and keep fishing, while I went upstream to throw a few flies. I really didn't think there could be anything in that hole, everyone who came along took a whirl at it.

I spent an hour upstream catching a few of legal size, but not big enough to keep. When I got back she proudly exhibited a plump fifteen-inch brown trout that she had horsed up on the bank.

Later she did it again. It was the same stream on which the boys had their dawn swim. I picked out a hundred yard stretch near where we had parked, and suggested that as she had no waders she work the place from the bank. "Be real sneaky," I cautioned, "when a trout sees you he instantly loses his appetite."

She apparently absorbed that sneaky part quite well. I put on waders and fished downstream for almost two hours, missed a few strikes, and lost one good fish I thought ready for the net. When I got back she had a half dozen trout averaging nine inches in her creel.

A twelve-year old girl just hasn't any discretion in matters of this kind. She related the tale of her piscatorial triumphs to any of my fishing acquaintances that showed up. "And what did Pop catch?" was the inevitable question.

"Oh, he didn't get anything. He was off wading somewhere."

This was worse than crashing brush trying to retrieve your offspring, or having them use a favorite trout hole for a simming pool. A man gets razzing enough from his fishing pals without having a fifth columnist in his own household feeding them material.

So, years later, after all this labor and agony, did these boys learn to love the soul-healing solitude of a lovely flowing stream, the evening call of the whippoorwill, the ripple of a rising trout, the fascination of drifting a fly over a shaded, quiet run? Naw. One is nuts about mountain climbing; the other took up sailing, and the third is a rockhound.

But I must admit there were dividends. While they didn't come down with an acute case of trout fever, they did learn to love the outdoors. They learned how to camp, and how to take care of themselves afield. If my fishing suffered at times it was well worth it.

The daughter? Mention fishing to her, and her eyes light up, and she says, "When do we go?"

My recommendation—don't overlook taking a daughter fishing—but don't let her outfish you!

KEYSTONE CAMPING

by Thad Bukowski

GODDARD STATE PARK, one of a handful of the newest recreation complexes in Pennsylvania, has attracted a big number of visitors in its first few years of operation.

The reasons are clear—good fishing, good sailing, and good camping.

The 11 mile long lake covering 1,800 acres of water and 26 miles of shoreline, is the center of attraction in the park just north of the town of Sandy Lake in Mercer County and south of the town of Sheakleyville, off Rt. 19.

The water area is called LAKE WILHELM after Lawrence Wilhelm, former Mercer County Commissioner, who was involved in the initial planning; the park named for Dr. Maurice Goddard, Director of the DEPARTMENT OF ENVIRONMENTAL RESOURCES.

Four temporary boat accesses, two on each side of the lake, are constantly in use. An extensive new marina, which can accommodate 250 boats, also has a big macadam parking area for trailers and concrete ramps for launching. Ten horsepower limits prevail at Lake Wilhelm. The marina is on the west shore, at the upper end of the lake, near Sheakleyville and has a unique lookout tower which affords a panorama of the lake. A causeway road separates the marina from a

modern, newly constructed, private campground. The 250 site campground on the northern end of the lake's east shore is within view of the new marina which may be readily reached for boat rentals.

The camping headquarters, located near the junction of Leg. Rt. 43071 and Pa. 285, includes a grocery, showers and modern toilet facilities, plus water and electric hookups for vacationers. Four additional state campgrounds are planned in the park area for the future by the Commonwealth.

The spot near the marina has a large secluded bay nearby which is open only to canoeists—or those willing to row boats with oars since motors are not permitted. It is a haunt for both big northern pike and bird-life. "Birders" can enjoy a quiet experience here as there is plenty of marsh for feathery denizens. Although a log boom separates the main part of the lake from the canoe haven (which stretches all the way back toward Sheakleyville) it is not difficult to make entry at the log point.

Area anglers have experienced sensational northern pike fishing during the past year and bass have also grown to size last fall. During a fall stint we caught a dozen legal bass

(about a foot long) on surface lures while canoeing the upper end. Later, we pulled 14 undersized northern through the ice one day. Reed Myers, of Hadley, Pa., landed 12 legal northern through the ice prior to March. Panfishing has improved and the lake should explode this year for interested top-water bug tossers. Some legal walleyes were also taken during the past winter, according to Waterway Patrolman Jim Ansell. The Fish Commission originally stocked Wilhelm experimentally with striped bass and muskellunge. Surprisingly, the northern pike explosion has occurred from a native population which lived in the slow moving swamp waters of Sandy Creek which was impounded to create the lake.

The new park and lake are readily accessible off I-79 or Rt. 19. To reach the camping spot, the easiest access is off Rt. 19 at Sheakleyville, a few miles along Leg. Rt. 43071 and just short of the Causeway point. A bait shop with all types of fishing needs is also located at the west shore of the Causeway.

Other interesting spots that might be visited from this point are Conneaut Lake, Pymatuning Dam and its waterfowl and Tamarack Lake, all excellent fishing spots particularly for the early June season. Conneaut permits unlimited horsepower, Pymatuning is limited to 10 and Tamarack permits only electric motors. During June both Pymatuning and Conneaut give up huge muskies, at Conneaut on the Swim Whiz and large spoons trolled rapidly and at the Pymatuning on big minnows.

The excellent fishing and boating available at Goddard State Park make it a favorite for Keystone State campers.



CO-OP NEWS

by Bill Porter

A monthly feature devoted exclusively
to Pennsylvania's Cooperative Nurseries—

*Cooperative Nurseries are fish rearing facilities
built and maintained by organized sportsmen
... at their own expense.
Fingerling fish provided by the Pennsylvania Fish
Commission are reared and released in public
waters of the sportsmen's choice
in accordance with policies prescribed by the
Fisheries Division's Cooperative Nursery Branch,
Robert H. Brown, Chief.*

The Waynesboro Fish and Game Protective Association, Franklin County, gets the spotlight this month. Perhaps the single most significant factor of this particular cooperative nursery club is its ability to try something, and, after discovering that it doesn't work, bounce back and try something that is better.

A prime example of this motivation and effort was in the initial construction of a series of raceways, running down the slope of a fairly steep hill. The amesite sides and bottoms followed the slope of the land in what looked to be an effective and complete job. Bulkheads were built at intervals and then the water was let in and they were ready to raise some trout. And this they did . . . but not without some problems.

One problem was the pooling of water as it sought its own level in each of the sections of the raceway. The bottom slope forced the water to pool at the lower end of each section and the trout perforce crowded into this limited area. That was seven years ago.

On our most recent visit, Bill Baer took us on a justifiably proud tour of the revised project. Cement block and poured cement construction had replaced the sloping amesite walls. Each section of the raceway now had a level bottom; aeration was better and the water level in each section could be controlled independently of the other sections while maintaining a uniform depth within each section. The reinforced block walls resisted frost damage which had been another problem of the original raceway.

In addition, drains and clean-out stations had been established for each section of the raceway. These cement drain boxes were covered by a removable iron grate and were connected to a continuous pipeline that carried water down the hill parallel to the raceway. An additional plastic line carried water down the opposite outside wall of the raceway as a con-

trol device when excessive water above the nursery had to be diverted from the raceway itself. These two features would be well worth examining by clubs with intake line clean-out problems or excess water diversion troubles. The construction is neat and seems quite functional, and the nursery itself looks as though it is home free.

Bill, a prime mover in the project for the last several years, pointed out that the club wasn't satisfied yet—some work had to be done on the water source and intake system which lies some distance above and beyond the nursery. The general terrain is that of a long sloping mountainside so that the water source at times fills to flooding with mountain runoff and at other times with debris and leaves. Following the stocking this spring, work will begin in early summer to improve the water control system to the nursery and a better diversion system to route excess water down and away from the raceway itself.

As a case in point, our host indicated that they had recently lost about 1800 fish as a result of a combination of excessive high water and screen blockage and another 1200 trout from a gill disease that seemed related to the improper water conditions. As the water subsided and the fish were treated with a formalin solution and a diet booster, the hatch-

ery returned to normalcy. However, enough was enough for the Waynesboro sportsmen, so by this fall at least some of the problems will be corrected.

The club is now producing about 6,000 trout for area waters with about a 2 to 1 ratio of brooks and browns and a few palominos. These fish are stocked primarily in Red Run, East and West Antietam Creeks, and some smaller acceptable trout waters not on the Fish Commission's regular stocking schedule. The area covered is extensive, as Bill phrased it, "We spread them out pretty good."

Some predator problems, human and others, have been encountered but not to a major degree. Complete screening is in the offing and additional flood lights and landscaping are planned to discourage night prowlers. A reasonable protection lies in the fact that the foreman for the club grounds resides on the property and watches over the various facilities including the cooperative nursery.

So in summary, the Waynesboro Fish and Game Protective Association has come a long way in the two years that separated our visits to its nursery project. The future looks good and Franklin County anglers in that portion of the county should benefit from the contributions of these sportsmen for a long time to come.

A view of the drainage system employed at the Waynesboro Fish & Game CO-OP nursery.





TAKE IT HOME!

A pair of Loons are nesting on Hunters Lake again this year and to hear these birds call is a real thrill for many fishermen. The male is all tangled up with monofilament line and in all likelihood will die a slow death because of it. Every year my Special Waterways Patrolmen pick up endless miles of monofilament line thrown along the streams and lakes in this district, by fishermen. We have found two mallard ducks and a bittern that have died from being tangled in monofilament. We are asking all fishermen to please not dispose of their line along the streams and if they find any left by others, pick it up. The line is a potential death trap for all wildlife.

G. W. Frank Kann
Waterways Patrolman
Sullivan County

KILLJOY!

One morning I observed a great deal of bird activity around the boat and trailer parked in my back yard. Closer inspection revealed a pair of chirping sparrows busily building a nest in the void space near the front of the trailer tongue.

I called for my wife to come and have a look. After a high level conference, we both agreed that I should discourage the nest building since any movement of the trailer would result in broken eggs or lost young.

Reluctantly, I removed all the twigs and other nest building material from the space. About an hour later, the two were at it again picking up the same material and pushing it into the space. This time I decided to block the space with a rag. While I was doing this, the two birds perched in a tree above and called me every name in the book. I'm pretty sure I even heard some four-letter words—in bird language that is!

James T. Valentine
Waterways Patrolman
Huntingdon County

SOME FISHING!

Twice within the past two weeks I received a phone call from Mr. Harold McCall of Lewistown, Pa. to look at his "catch." The first was a Citation-winning brook trout, 18½"—5 lb. The second was a 23½"—6 lb. rainbow. Mr. McCall agrees, "*That's some kinda fishing,*" especially since he's only been enjoying this sport for a few years since his retirement.

Richard Owens
Waterways Patrolman
Mifflin County

ON SECOND THOUGHT . . .

One day during the summer, I was patrolling East Hickory Creek. While approaching an area that has quite a few beaver dams, I heard a rifle shot. Soon, two young men were seen standing on top of a dam. When I asked what they were doing, one man holding a 22 rifle told me he was shooting frogs. I asked to see his fishing license. He had no fishing license, but he did have a hunting license. I explained that a fishing license was required to shoot frogs. He said, "Then, I wasn't shooting frogs, I was shooting at a beaver." When I explained that there was a twenty five dollar fine for shooting frogs without a fishing license, and under the Game Laws there was a fifty dollar fine for attempting to kill a beaver, the man looked at his companion with a very straight expression and said, "Boy, did you see the size of that bull frog?"

George R. Jones
Waterways Patrolman
W/Warren County

"PACEMAKERS"

Recently one of my Special Waterways Patrolman reported to me that he had been fishing on Stone Creek in Huntingdon County with his wife while there were a number of fly fishermen fishing the same area. Most of these fly fishermen were wearing the type of fly box which is worn on the chest and held there by several straps. There was really nothing unusual about this whole occurrence,

except his wife's comments on these fly fishermen. She figured out that the incidence of heart trouble must be extremely high in Huntingdon County since she thought that the fly boxes worn on the chest of the fishermen were "Pacemakers"! You would wonder how so many fishermen with bad hearts would gather in one area. To keep my Special from being murdered, I will withhold his name!

Walter A. Rosser
Waterways Patrolman
Blair County

HOW OLD?

Special Waterways Patrolman Rich Sallade was checking fishermen along the Beaver River one evening when he encountered a boy of questionable age. Rich asked, "May I see your license?" The youth replied, "I'm only 15!" "When were you born," Rich inquired. "October," the lad answered. "What year?", Rich asked. The boy said, "1857!" To this Mr. Sallade exclaimed, "That would make you one hundred and fifteen years old!" The young fellow smiled coyly and said, "It doesn't show, does it?"

Don Parrish
Waterways Patrolman
Beaver County

WILD ENCOUNTER!

John Bosko of Warren related the following humorous incident to me: John was enjoying a peaceful evening fishing along Big Brokenstraw Creek during the 1973 trout season, when all of a sudden the peace was shattered by a charging, ill-tempered, 15-pound woodchuck! John's instinctive reaction carried him far out into five feet of wet trout domain. Observing that Mr. woodchuck also retreated, John then returned, with slightly dampened dignity, only to be confronted by a second frontal assault by his furry adversary. Using his rod to defend himself, John then accidentally hooked on to Mr. woodchuck and proceeded to battle him with all the fishing skill he possessed! As we all know, the "big ones" usually get away, and Mr. 'chuck was no exception. He was last seen retreating with John's No. 1 Mepps firmly embedded in his rear. I tried to console John over the loss of his trophy chuck by pointing out the fact that, being "*foul hooked,*" would have necessitated releasing him anyway!

Terry M. Hannold
Special Waterways Patrolman
E/Warren County

THE CROOK!

Each year at Parker Dam State Park there are a number of funny and unusual incidents that occur during the early part of trout season. This year a fisherman was talking to his buddy when a beaver came by and became tangled in his line. The beaver made off with the fisherman's entire outfit. As of yet, I have had no report of anyone seeing a beaver fishing for brook trout in the Parker Dam area.

Edward W. Brown
Waterways Patrolman
Clearfield County

SOME CATCH!

Basil Tuller and Marshal Tarabori were fishing Pine Creek for suckers last spring. Basil had a strike and tried to land his catch. With much effort he finally started to bring in the fish. Finally, he had to have the help of Marshal who took hold of the line and, "hand-over-hand", landed the fish. Much to their surprise, Basil had three large suckers in tow! It seems that Basil had lost a leader the day before with two hooks attached—both baited. Both these hooks had a sucker on and the line on which he had a strike, also held a big sucker! In the process of landing all these suckers, the second pole of Basil's had tangled up in the mess making it seem as though they had caught all the suckers in Pine Creek! Both men were very happy with their catch as the suckers weren't doing too good on that particular day.

Kenneth Aley
Waterways Patrolman
Potter County

CHANGING TIMES

The trout had not been too cooperative last year but on the first day of bass season on the Driftwood Branch, they came to life. The bass fishermen found very nice trout. That was the first time I had to arrest an angler for having over-the-limit of trout on the first day of the bass season.

Stanley G. Hastings
Waterways Patrolman
Cameron County

BARGAIN DAYS?

A dollar is still worth 100 cents, as far as the price of a fishing license is concerned. I checked a fisherman on Bowmans Creek recently who had a limit of trout. He said he had caught his limit from Mehoopany Creek on

each of the first fourteen days of the season; also caught two limits from Quaker Lake. This made a total of 130 . . . just talking about the days he caught *daily limits*. We didn't discuss how many days he caught partial limits. While talking to Susquehanna County Waterways Patrolman Roberts later, I found he had arrested him for over the limit. This man of course, didn't tell me about that number! While hearing *sportsmen(?)* telling me of the numbers of trout they *kill* does not exactly turn me on, it was gratifying to hear of the number caught from Mehoopany Creek, as this stream was really torn up by "Agnes" and the reclamation that was done following the storm. This proves my belief that Mother Nature has her way of fighting back!

Steve Shabbick
Waterways Patrolman
Wyoming County

CUMBERLAND COUNTY CALLING

Outstanding trout fishing is to be found in Cumberland County. If you are having trouble catching trout, then come to Cumberland County. This past winter was a banner year for the fishermen at Opossum Lake. It was not unusual to find many of the fishermen with their legal limit of trout, some fine catches of crappies, and also some fine largemouth bass. In addition, the three "FISH-FOR-FUN areas" in the county provided outstanding fly fishing all through the winter. The water was low and clear and the fly fishermen using wet flies and midges were catching some real trophy fish. On December 28th, Mr. Frank Basehoor caught a 24" brown trout weighing five and one half pounds from the Big Spring Creek. Frank also advised me that he had taken a rainbow trout the same week of about the same size. Many of the local fly fishermen report catches of 15 and 20 trout per day in these areas.

Perry D. Heath
Waterways Patrolman
Cumberland County

CAUGHT IN THE ACT!

While on fish law enforcement patrol below the Shenango Dam, special Waterways Patrolman White and I were fishing alongside of a suspected walleye snagger. The man started to move upstream and when he got alongside of Officer White, he in-

formed White that he should be careful because I was the "Fish Warden". As Officer White and the man moved around the bend in the stream, he snagged a walleye. He looked for me, and not seeing me, he pocketed the walleye. When Officer White informed the man that he was a Special Waterways Patrolman, all he could say was, "You can't be! You can't be!"

James E. Ansell
Waterways Patrolman
Mercer County

TRIBUTE TO ERIE COUNTY

I cannot describe the deep feeling I have for the people of W. Erie County. My tour there was one of absolute cooperation from all kinds of groups; from my own Special Waterways Patrolmen, to Jaycees, volunteer fire companies, sportsmen's clubs, and other state agencies. Together, we made great progress for sportsmen in many ways. Hats off to Erie and to the great people who made my tour of duty there a distinct pleasure.

Harry H. Redline
Waterways Patrolman
Lancaster County

NO STOPPING THEM!

I inquired of a gentleman who was waiting for the stocking truck to arrive, where he managed to get gas to come to Cameron County to follow the truck. He replied, "If you think the gas shortage is going to interrupt my fishing you're crazy!" Judging by the attendance at the stockings, many more anglers must share the same feeling. It looks like another record year. The trout are very nice and our "stockholders" are telling it like it is.

Stanley G. Hastings
Waterways Patrolman
Cameron County

MORE EACH YEAR

Stream patrols are a good place to observe changes in the angling patterns of a district. If my observations of the last several weeks indicate anything, there may be a large new group in Pennsylvania angling circles this year. The last several weeks I have seen more female anglers than at any other time, and I would like to extend a hardy welcome to them.

Warren W. Singer, Jr.
Waterways Patrolman
Adams & N/York Counties



Beetle Baits

by Don Shiner

Ever "chum" with insects, say, Japanese Beetles, to stir trout into action?

Chumming is an old trick, used for generations in salt water fishing. Crews on fishing schooners throw bucketfuls of chopped baitfish into the briny depths. Nearby school fish move in quickly to feast on this banquet of foodstuff. Right about then the fishermen haul in nets or begin casting baited hooks and lines. In most cases, fish come faster than the men can take care of 'em.

One occasionally finds fresh water anglers chumming with sweet corn, blueberries or spoiled meat for such fish as bullheads and carp. But chumming pays off with trout too. This is especially so when the chummed baits are grasshoppers, or of late, the pesty Japanese beetles.

Your grandfather probably chummed with grasshoppers or cricket baits. But the idea of using Japanese beetles is relatively new, coming into being with their arrival. No one knows exactly when these pesty insects migrated to the United States. By 1952 the Japanese beetles were widely distributed in States along the Atlantic seaboard from Massachusetts to South Carolina. They occurred at scattered points in adjoining States and through much of Pennsylvania and into the Midwest, east of the Mississippi. The beetles, originally from Japan, became most destructive of leaves, blossoms and fruit of more than two hundred native plants.

In that space of time, a few species of song birds have enlarged their niche to include these greenish colored beetles with bronze wing cases. Fish also began feeding on those which, by chance, fell into the water.

The life cycle of this beetle is not much different from that of our native insects. The oriental beetles spend about ten months as white grubs in the soil.

In early June the grubs stop feeding on the roots of vegetation, and go through a short resting, or pupal, stage. During this time they turn into the familiar insects. By early July the adults dig from their burrows, fly about in great numbers to feed on the vegetation. A month later females return to the ground to lay eggs.

From the foregoing, it becomes clear that July will be the month when fish actively feed on the beetles. It is then that you can gather a huge jarful of insects from a single roadside bush, for a good supply with which to chum for trout. When fish are actively engaged in accepting your chummed baits, slip them one which has been impaled on a tiny hook.

Many fishermen slyly slip an imitation among the live beetles. Just any fly will not suffice for this trick. Reason being that most flies have long hackle which support them above the surface tension in the stream. Live beetles float *in* this surface film. Imitations must therefore float likewise. A fly with trimmed hackle and a broad flat wing, will generally float in this manner.

Pictures printed on these pages show a typical beetle-type dry fly being assembled. This is one of many types currently being fashioned by fly tiers. Providing they float *in* the surface film, most prove acceptable to trout.

The procedure shown in the accompanying pictures shows hackle being wound around the hook in the usual manner. Hackle is then trimmed short, with scissors, to permit the fly to ride low in the current.

The flat wing is fashioned by taking a duck breast feather in hand, then bending the fibers into a reverse position. Curved fibers and rib are tied into position. Following the securing of this wing with the tying thread, excess tip and feather shaft are



▲ Photo 1.



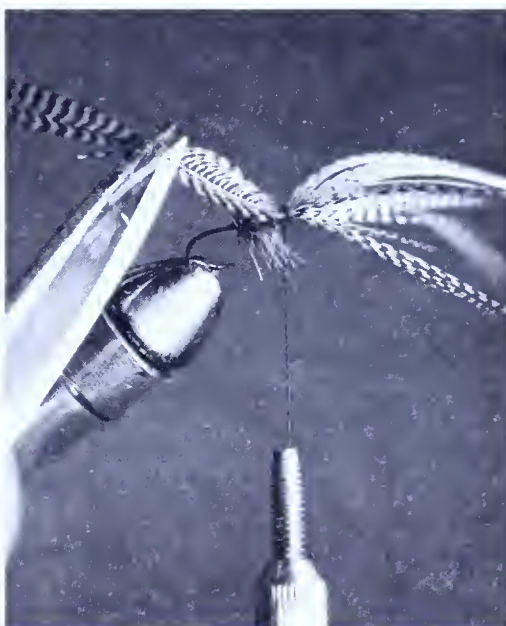
▲ Photo 2.



▲ Photo 3.



▲ Photo 4.



▲ Photo 5.



▲ Photo 6.

1. Tie an imitation beetle by winding hackle feather around the hook, in the usual dry fly tying method.

2. Use scissors to trim this hackle short so fly will float 'in' the surface film of the water.

3. Use a duck breast feather for the wing.

4. Pull back fibers on the breast feather, until they are in a reversed position.

5. Now tie reversed feather to hook to serve as the wing. Cut off surplus tip and rib of feathers.

6. Give the flat wing several coats of brown lacquer to give the wing rigidity.

cut off. Several coats of lacquer, brown in color if you prefer, give the wing rigidity.

Trout cannot determine the depth of an insect's body from a low position in the water. A flat wing fly therefore proves an acceptable substitute to a live beetle.

Many anglers are, of late, experimenting with terrestrial insects for trout during July, generally after the usual aquatic hatches have ceased to materialize. Grasshoppers, crickets, Japanese beetles, even caterpillars and ants then come into prominence. Chumming with these land insects bring lazy fish into action.

If you haven't tried it before, get ready next month and gather a handful of Japanese beetles. Slip quietly into the currents at the head of a pool. Drop a few beetles into the water and observe their progress downstream. Six, eight, perhaps a dozen or more may be required to get trout moving. When one rises and accepts the "Real McCoy", slip the imitation fly into the water. Or, if you are so inclined, drop in a live beetle which you have impaled on a very tiny hook. Expand your chumming operation to include other terrestrial insects. Because Japanese beetles are so abundant, these are good baits to begin with. You'll find the beetles will put extra trout in your creel.

Sit Down Boys!



*We want you back
again next season!*

Unsafe boating practices often turn a fun-filled day into one of tragedy. Can you spot something wrong in this photo?

First of all, standing up in a boat can lead to trouble. Notice that those anglers standing have their backs to the man sitting in the center. Should he shift his weight, unexpectedly, both of the men standing could lose their balance and topple overboard.

Typical of many bass fishermen, they're fishing what appears to be shallow water near shore—little danger there, you say? The fact is that once bad habits are developed, they're in practice both in deep and shallow water!

Secondly, although their boat appears to be sturdy and we can't see the capacity plate, we'll bet it's not rated for three men, all their gear, motor and gas tank!

For your own safety, and that of your passengers, take a little time to digest those safe boating tips in your Summary of Pleasure Boating Requirements.

Plants Anglers Meet

continued from page 15

green leaves that turn water splashed on them into lively circles of quicksilver. Water lilies like uncluttered open spaces in quiet areas; the five-inch flowers, enhanced with golden stamens, open early and close by noon. They bloom from June well into September.

5. The SWAMP MILKWEED (*Asclepias rubra*) is one of the many members of the big, showy milkweed family that is widely adjusted to many habitats, so it would be expected a species would be found favoring waterways. This one, the swamp lover, is a sturdy plant, often with many stalks, that grows to four feet. Its leaves, that appear almost stemless, are narrower than those of most other milkweeds. The attractive flower clusters are pink. These are followed by very slender, hardcased pods, neatly packed with brown seeds attached to silky puffs that will take to the wind late in the fall when the cases finally open. The flowers may appear as early as June and continue through August.

6. BULRUSHES (*Scirpus lacustris*) are those supple, round, and apparently leafless rushes, three to ten feet tall, and members of the sedge family that grow in patches in harbors and lakes around the world. They can be found almost any time during the frost-free months, constantly bending but never breaking before the strongest waves and winds. As a boy I would row my boat rapidly towards a thick stand of them, then lift the oars, and coast through the patch. The long green whips would go down unresistingly beneath the weight of the craft, then spring upright, unhurt, and just a bit greener for the encounter. Most folks think bulrushes lack flowers and the blossoms are far from typical. They are brown, strawlike masses of spikes and clusters that sprout out high up on the round, whip-like stalks. Their famous African relative, the papyrus, was the sedge that sheltered the boy, Moses, and was once made into stationery by the Egyptians. Bulrushes are used around the world for making mats, chair bottoms, thatch for roofs, even for making boats.

7. The PURPLE or SPIKED LOOSESTRIPE (*Lythrum*

salicaria) is a lovely, tall—up to six feet—and many-branched European plant that has made itself at home here in America. Hundreds of 6-petaled flowers gleam on tall, tapering spikes during the June-September season. The flowers occur in three forms; they have short, medium, and long stamens and style—a most unusual arrangement to find in the blossoms of a single plant. The narrow, sessile leaves are opposite or in whorls of three. The plant selects river beds, swamps, and lake sides for its habitat.

8. SWAMP ROSE or ROSE MALLOW (*Hibiscus moscheutos*) is no true rose but a member of the mallow family which is a diverse one including such plants as the hollyhock, rose of Sharon, and the cotton plant. Its most aquatic species is this swamp rose, a handsome, shrubby perennial that grows to six feet and flaunts crimson-pink, five-inch blossoms in August and September. Each flower has five sepals, five petals, and in its center an unusually prominent style surmounted by five rounded stigma.

9. Unfortunately, the CARDINAL FLOWER (*Lobelia cardinalis*), an almost startlingly beautiful member of the lobelia family, is growing increasingly rare in our state. The plant grows to four feet—often in running water. Its velvet-like, intensely red flowers are produced on long spikes, and each blossom consists of a tube that terminates in a thrice-divided lip and more slender upright parts. The flowers are so shaped that only the long beaks of hummingbirds can pollinate them. Blossoms appear in August and September.

10. The BLIND, CLOSED, or BOTTLE GENTIAN (*Gentian andrewsii*) is also becoming increasingly uncommon in our state, but the sight of one makes an event of an ordinary day. Helen H. Jackson wasn't writing about this species when she wrote, "*The gentian's bluest fringes are curling in the sun,*" for the bottle gentian's purple-blue petals never open as the cups of other flowers do. The sky-hued flowers grow just above whorls of leaves where they look like small, upside-down bottles attached without stems to the gentian's stalk. These gentians grow on the banks of streams and lakes and bear their flowers in August and September.

Fishing Outlook

continued from page 2

Arrow Lake, in Schuylkill County, or Memorial Lake on the Indiantown Gap Military Reservation.

Both of these lakes have had adult northernns stocked in them. Largest northern recorded from Sweet Arrow was a 42½ inch beauty that weighed better than 25 pounds. Memorial Lake has had little reported success from the northernns stocked within it, but the Swatara is doing great!

The presence of northernns in the Swatara has a logical explanation. But how do you account for the

two northernns—one legal 25-incher, the other a bit shorter—that an Emmaus angler caught in the Lehigh River near Allentown while out for some good winter chain pickerel fishing? He caught these fish within a two week period. Their only possible access to the Lehigh would be via the Delaware River, but in order to get to that section of the Lehigh, they would have had to surmount the dam at Easton which rises on a slight pitch for 15 feet or so—but they came from somewhere!

As we mentioned in our opening paragraph, the wanderings of fish are quite often without rhyme or reason!

A FISHING FEATURE FOR FISHERMEN-FROM FISHERMEN

FISH TALES



Musky fisherman, **BUD HAUENSTEIN**, of Natrona Heights, pulled this 50-inch, 38-pound beauty from the Allegheny River, Armstrong County, in February. Another new member added to the Husky Musky Club.



DAVID LITTS, 14, of Susquehanna, caught these nice carp one day last August from the Susquehanna River, Susquehanna County. They both were taken on crawfish and measured 32-inches & 28-inches.



EDDIE MOOK, 12, of Pittsburgh, (and brother Jackie) shows his catch of a 25-inch, 6-pound carp taken from Pymatuning Lake late last August. A doughball was used for bait.



A Bessemer youth, **RANDALL SMART**, 14, won two Angler Citations for his catches of a 14-inch, 1 $\frac{3}{8}$ -pound and a 12 $\frac{1}{8}$ -inch, 14-ounce yellow perch, from a Limestone Quarry in Lawrence County.



Angler **DONALD T. BESECKER**, of Stroudsburg, caught his 31-inch, 8 $\frac{7}{8}$ -pound walleye while fishing the Delaware River in Monroe County last November. He used a lamprey for bait.



JOHN KOCEVAR, of Steelton, landed his 45-inch, 25-pound musky in July '73 while fishing the Susquehanna River in Lancaster County. John became a member of the 1973 Husky Musky Club.



TOM STRAUB, 14, of St. Marys, holds the 20 $\frac{1}{4}$ -inch, 4-pound smallmouth bass taken from Kyle Lake, Jefferson County, in February. He was ice fishing with a tip-up using minnows for bait.



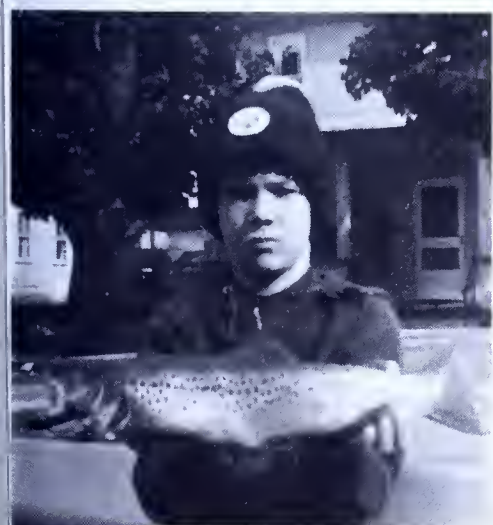
A Wilkes-Barre youth, **STANLEY RAY**, 13, caught this 23-inch, 6-pound large-mouth bass on a worm while fishing Harveys Lake, Luzerne County, in August. He earned an Angler Junior Citation.



This young angler, **ROBERT BANGOR**, 10, of Levittown, landed his 31-inch, 12-pound musky from Beltzville Dam last September using a minnow. He earned a Jr. Citation and a Husky Musky Honorable Mention.



Angler **KENNETH COURDUFF**, of Buckingham, caught his 25-inch, 8½-pound largemouth bass from Lake Estemervalt in Wayne County last August. He received a Senior Citation for his catch.



STEVEN SNYDER, of Ducansville, proudly shows his catch of an 18-inch, 2-pound brown trout from Canoe Creek Lake in Blair County. He made the catch in October using a nightcrawler for bait.



KENNETH BEHE, of Lilly, holds the 39½-inch, 17½-pound Amur pike taken at Glendale Lake on a minnow last August. Mr. Behe earned his Angler Senior Citation for this beauty.



Another young musky fisherman, **FRANK DELTURK**, of Allentown, happily shows the 31¾-inch, 10½-pound musky caught in Beltzville Reservoir last November. He used a minnow for bait.



PAUL HULSINGER, 9, of Wattsburg, holds this beauty—a 24-inch, 5-pound rainbow trout—caught near the mouth of Trout Run, Erie County, in October. Paul's bait was salmon eggs.



PAT WOLF, 10, of Lebanon, was fishing the Susquehanna River, Dauphin County, last October when he caught his 27-inch, 6-pound carp. He lured his prize using corn for bait.



A Berwick angler, **ANGELO PROCIDA**, was also fishing the Susquehanna River, Snyder County, last October and caught a 35-inch, 28-pound channel catfish and earned his Angler Senior Citation.



This young lad, **JOHN SWINTON**, 9, of State College, is very pleased with his catch of a 25-inch, 4½-pound chain pickerel from Stone Valley Lake, Huntingdon County, taken on a shiner.

A Bass Man Fishes Pennsylvania

continued from page 13

baits with a surface retrieve.

Q. How do you fish a lake for the first time?

A. First, I talk to local fishermen, a guide or boat dock operator. They can tell you where the action has been, what they are hitting on, etc. Then I evaluate the depth and structure relative to water temperature and turbidity. Some of this judgment is intuitive, based on experience. I also use my fish locator at those times. Most important, don't stay with one approach too long. Change your system if you are not getting results.

Q. How important is accurate casting, and which tackle is most accurate?

A. Very important. If you can accurately present a lure, you will increase your bass catching ability. For me, the casting rod and reel is most accurate, but the spincasting outfit is most accurate for some people. As a good indicator, in tournament casting, baitcasting equipment will produce 99 to 100% accuracy. Comparative percentages for other equipment are 85 to 90 for spinning, 80 to 85 for spincasting, and 100% for fly casting.

Q. How important is mental attitude in fishing?

A. It has a pronounced effect. Consider a day when fishing has been poor, and you haven't had a strike for hours. Then, one of your party catches a fish. Suddenly, you are alert; you start presenting the lure better, and chances are that you too will catch a fish soon after.

Q. What is the single most important factor in catching bass?

A. Keeping the lure in the water. Keep fishing and you will increase your chances of catching fish.

Photos are all of Dick Kotis, except #1, which is of Kotis talking to Doug Brown, an old time resident of Oil City, with a home on the Allegheny River.

1. "First I talk to local fishermen."
2. "A front will usually drive them down."
3. "... its father, who has been protecting it, tries to have it for dinner."
4. "Bass survive by instinct and experience; you will not hook him a second time on the same lure."
Alternate: "The first rule is to have the child catch fish."
5. "Ten or twelve lures will cover most fishing situations."
6. "Fish often to find yourself; it's so easy to get lost in the world."

THE ANGLER'S NOTEBOOK



by Richard F. Williamson

FISH FACT: Smallmouth bass build spawning nests during the period from April into June, when water temperature averages between 50 and 65 degrees. Nest locations are beds of gravel or coarse sand, usually in three to six feet of water.

Modern floating fly lines are made of material that does not absorb water readily, so there is really no need to grease them. But they do collect dirt, and they will float better if they are cleaned frequently. This can be done by rubbing the line briskly with line dressing on a soft cloth or felt pad.

Give midget-sized casting lures a trial. They include plunkers, divers, floaters, swimmers, churners, and all down the line. And the same variety of finishes is available in the midgets as in the larger plugs.

Trousers with cuffs are poor things for wading. They catch and hold sand and gravel and, when wet, sag down over the heels. If the pants are old enough to wear in wading, it won't hurt to cut off the bottom six inches of the cuffs.

Fish looking for a meal of shore minnows are cruising and watchful, and they will see a lure or bait cast some distance from them.

The spider type of dry fly takes trout in almost any kind of water—in heavy and deep riffles and in shallow and quiet flats. Usually the fly is allowed to float quietly with the current, but many anglers like to make the spider dance on the surface.

Get down on your knees when fishing low, clear water. The tackle may be more difficult to handle in such a position, but the angler can get closer to the fish without being seen.

Baitcasting outfits remain essential fishing tools in spite of the popularity of spinning reels. They are best for handling the larger and heavier lures, best for trolling, best for forcing large fish out of weeds and other tangles, and best for achieving accuracy in casting.

Use a small hook, Size 10 or 12, and correspondingly small bait or lure, in angling for panfish.

A bridge pier in a large stream is a good spot to fish for big trout and bass. The bridge itself provides a constant patch of shade from bright light, and the action of the water around the pier is likely to have washed-out spots where fish can rest in safety.

Land insects form an important part of a trout's summer diet. When blown off vegetation or land into water, beetles, bees, ants, grasshoppers, crickets, and caterpillars are readily taken by feeding trout. Imitations of these insects are excellent trout lures.

Bass feeding in riffles and other fast water are especially good targets for a streamer fly. Minnows frequent such water when in search of food, and the bass know it and go there to feed on them. Streamers imitate minnows.

Use light tackle in fly fishing for bluegills, and you'll get a bigger kick out of the strike and battle of this gamester. Bluegills can be shy, so a leader nine feet long and with a tip tapered to 3X or 4X may be used, provided the rod is light and fairly whippy.

ONE WAY TO BEAT THE HEAT



AND BRING HOME THE MEAT!

That's Earl McClendon, "underway" on the Allegheny River, near Blawnox, about nine miles from the "Point" at Pittsburgh. Photo by Bob Kopta, Special Waterways Patrolman.

Bass Season Opens June 15th-



and that smallmouth is a “keeper”!

**If you've got your 1974 fishing
license, you're all set for fun.**

But, did you know that your fishing license fee, in addition to providing fishing fun also helps in the fight to keep Pennsylvania's streams and lakes free from pollution? Make some friend of yours a conservationist too—buy him a license! Take him fishing—you'll both be richer for it!

**And, in between fishing trips, you'll
want some good reading—the Angler!
(Check page 3 for the details)**

JULY, 1974

PENNSYLVANIA

532.17/4
3, No. 7

Angler

the
Keystone State's
Official
FISHING · BOATING
Magazine...

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***Even good laws
can be improved —
Support H.R. 14527!***



In March of 1934, President Roosevelt signed into law a milestone in conservation history. This was the Fish and Wildlife Coordination Act, providing that “fish and wildlife conservation shall receive equal consideration and be coordinated with other features of water resource development programs.” This has been amended down through the years—in 1946, 1958, and 1965—to increase its effectiveness.

In essence, the Act requires *some* federal construction agencies to consider the effects of their water development projects on fish and wildlife. But not all federal water projects are evaluated to determine their potential impacts on fish and wildlife habitats and recreational opportunities.

The exemptions are: Tennessee Valley Authority, the Atomic Energy Commission, and the Soil Conservation Service.

From where we sit, we think that amendments to the Act are needed to consolidate and strengthen the fragmented and inadequate authorities, to improve interagency planning of projects, and to minimize the adverse impacts on fish, wildlife, and other resources.

So far, the best legislation to come down the pike seems to be H.R. 14527, which strengthens the role of federal and state resource agencies in decisions regarding the adoption of measures not only to prevent damage to fish and wildlife, but to benefit them. We think that all federal agencies that get into the construction business should consult with the resource agencies when authorized project plans are modified significantly during the final design studies, and we like the language of H.R. 14527. Much good has come out of the original Act. Examples are the fish ladders and other devices in Corps of Engineers’ hydroelectric dams, and other mitigation measures which have, in effect, let us have our cake and eat it too. We hope that all sportsmen and interested citizens will let their wishes be known to their congressman or senator. No agency should be permitted to operate in a vacuum.

Ralph W. Abele,
Executive Director

Pennsylvania Angler

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FRONT COVER: Shore fishing probably accounts for as many good fishing catches as the boating fisherman will make — but for getting out to those otherwise inaccessible spots, there is nothing like a lightweight boat or canoe.

Photo by Sylvia Bashline

BACK COVER: This is the rare and endangered Bog Turtle (story on pages 15-18.)

Photo by Kenneth T. Nemuras

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James F. Yoder, Editor

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*"Much maligned, and fished for
seriously by just a few anglers,
fallfish offer fine summer sport"*

Fishing Outlook

by Stan Paulakovich

The warmth and the solitude found on a trout stream on a July day is suddenly shattered by the happy cry of a solitary angler. "Fish on!" What is it? The flashing fish catapults out of the water, then bores down into the depths of the pool.

"It's one of those silver chubs," he mutters dejectedly. But the slender, willowy fly rod is bent almost double, the throbbing tip tells you the fish is a good fighter and it will be a while before he can be landed.

Much maligned, and fished for seriously by just a few dedicated anglers, the fallfish offers fine summer sport. Most of our larger streams in the eastern portion of the state have plenty of big fallfish in them.

A member of the minnow family, they are heavily and roughly scaled, their silvery tones often highlighted by iridescent greens, blues or purples. During the spawning season, their fins take on a bright red cast. Their body shape is similar to the sucker, but the mouth, unlike the round one of old rubber lips, is straight across and well adapted to taking small fish and insects. They feed equally well on the surface or underneath.

Most fishermen think of fallfish only as bait. Up to 8 inches in length they can be taken by trap or net. Over this size, dandy musky bait, they must be taken on hook and line. They are a tough little fish that holds up well on the hook. Their soft dorsal fins, without sharp spines, make a favorite food for all the game fishes.

During July, most of our streams will be at minimum flow and "gin clear." The fallfish congregate in the fastest water at the head of the pools. Here they will position themselves to intercept any semblance of food in the area. They compete with trout and smallmouth for any flies, nymphs, crustaceans or minnows that pass by.

There is no record available on a national basis for

fallfish taken on hook and line. Our state record fish was caught by Clarence Wheal of Hughesville in 1967. It measured 19½ inches, weighed 2 pounds 4 ounces, and came out of Loyalsock Creek in Lycoming County. There are bigger ones around.

Neighbor Charlie Long, of Emmaus, told of fishing Pine Creek in Tioga County several years ago. It was a warm summer day and the fallfish were on a feeding spree. Charlie is a wet fly man and on one of his casts to the head of the riff, a big fallfish picked up one of his flies and took off. After a lengthy battle the fish was finally led to the net. In perfect physical shape, nice color and of good proportion, it stretched the tape to well over 20 inches. A moment was taken to admire the beauty and fighting spirit of the fish, then it was gently returned to the water.

Most fallfish are caught accidentally by smallmouth or trout fishermen. There are techniques that will help you spend an enjoyable day on the stream fishing for them when other fish seem to have gone on a hunger strike. You can catch fallfish on most anything. Small spinners, worms, minnows, hellgrammites and crayfish are all good. Even a tiny plug, fished on an ultralight outfit, on or just below the surface, will get the solid whack of a hungry fish. Best way to catch them is on flies.

Brightly colored flies, which are most visible, are best. White millers, orange sedge, fan wing coachman, bi-visibles in any color, and light cahills, are choice patterns. Tie these on size 6 or 8 hooks with plenty of hackle, so they ride high on the water. In wet fly patterns, too, those mentioned above are good. Wooly worms on the same sized hooks are among the best in wet patterns.

Use a fly rod with soft, limber action. Taper your leaders down to 2 or 3 pound test at the tippet. A nine foot leader or longer is recommended. Concentrate on the fast water, right at the head of the riffle. This is the spot you will find the feeding fish. Getting the proper drift in wet fly fishing can be ticklish here, but for dry fly presentation, it's ideal.

The earlier mentioned Loyalsock and Pine Creeks are tremendous fallfish streams, especially in July. Other good ones include Standing Stone Creek and all the branches of the Juniata River in Huntingdon County. The Juniata itself, from Ardenheim down to Clarks Ferry is exceptional. The Susquehanna, in its entire length, harbors many giants of this species. Top-notch, too, are the Swatara and Lackawaxen Creeks. Our Delaware River is a notable spot for fallfish as evidenced by the great numbers that are caught on darts during the shad runs in May and June.

If you're going to utilize the fish for the table, they have to be properly cared for. Clean them immediately after catching. Keep them cool and dry, preferably in an iced cooler. Don't hang them on a stringer in the water for several hours and expect them to be palatable. Since fallfish have a lot of hair-fine bones, the best way to prepare them is to smoke them. Like many other fishes in the warm months, the flesh deteriorates rapidly. But if you take care of them, and fix them right, you will have quality eating unmatched. The flesh is milky white and flaky. It has a delicate subtle taste which adds to the pleasure you have had in catching them.

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: A heavy rain during the usual dry days of summer "roils" the streams, and fish become active feeders, knowing instinctively that they will find a more bountiful supply of natural food in the murky water.

Steaming-hot days of July and August are not usually regarded as good times for trout fishing. But some species of aquatic insects, including mayflies, continue to hatch even in extremely warm weather, and flies that imitate them take fish. Patterns in very light colors are effective.

Favorite bait combination of many walleye fishermen is a June Bug spinner and minnow. It is especially effective when trolled slowly.

Trout in the middle of summer feed on ants, crickets, grasshoppers, and other land insects that fall from trees and overhanging brush. Use live baits of these types, or artificial lures made to imitate them.

Trout flies also are fine bluegill lures. Try such patterns as the Dark Cahill, Black Gnat, Gold-Ribbed Hare's Ear, Muddler Minnow, and Mickey Finn. Flies should be used in Sizes 10 to 14 and the Mickey Finn in Size 8 or 10.

Rest during the day in the hot weeks of summer. Fish in the early morning hours, or in the evenings, when insect hatches are the largest and the bigger trout do most of their feeding.

An injured baitfish, in its struggling, makes vibrations that game fish recognize as a signal of easy prey. This is the reason plugs and other lures that cause vibrations in the water catch fish.

Where to fish for pike? Any spot that provides them a hiding place in which they can wait for their prey.

Fragile baits, such as crickets and grasshoppers, must be handled carefully. They should be used on light wire hooks.

For plug casters: Don't use a sidearm cast in a boat. Don't walk through brush with the tip of the rod pointing the way. Don't work too close to stillfishermen. Don't "rough-up" a small fish that takes your lure.

Rubber legs that will wriggle in the water add to the taking power of flyrod surface lures for bass and bluegills. Buy a selection of legged lures, or, make your

own. Create the legs by tying short lengths of rubber band, crossed, between the eye and the body of the lure.

Use short casts, up to about 30 feet, when fishing lily pads for bass. You cannot control the lure properly when the cast is overly long, and a long line is more likely to snag in the lily stems when a fish is hooked.

Here's a timetable for evening fishing with flyrod bass surface lures: Get into serious action about the time bats begin gliding over the water and the whippoorwills begin singing. This is also the time when the largest species of insects take to the air.

In fishing with bait for bass lurking in weed beds, attach a float to the line just high enough to keep the bait high in the weeds, otherwise it will sink to the bottom and likely be hidden from sight.

The biggest, hungriest bass will almost always be found in the deeper areas of a lake, pond, or stream. Only smaller fish consistently prowl shallow waters. At times, of course, even big bass move into the shallows to feed on minnows and insects. This is usually during the evening hours and at night.

Something new for Lake Raystown

Lake Raystown, in Huntingdon County, might someday offer Pennsylvania anglers some exotic fishing heretofore available only on a deep-sea fishing trip. Waterways Patrolman James Valentine holds one of more than **20,000 STRIPED BASS** planted there last year.

Traditionally a saltwater species, the striper was originally isolated (landlocked) in 1941 by the building of the Santee-Cooper Reservoir in South Carolina. Since that time, introductions have been successful in other southeastern and western states.

Although the planting is strictly on an experimental basis, our biologists feel that Lake Raystown most nearly meets the criteria required for stripers - its great size and many miles of free-flowing river upstream (suitable for natural reproduction) make it an ideal choice.

Saltwater stripers are known to reach 30 — 40 pounds, but the fresh-water "transplants" can hardly be expected to attain that size. We should have more answers by 1977, when Raystown is expected to reach its peak. Biologists are looking for 4- to 6-pounders by that time if the species adapts itself to the new impoundment.





It is the sincere desire of the Pennsylvania Fish Commission that our anglers and boaters receive prompt, factual responses to their inquiries. However, much of the mail received each day is directed to the editor's attention, resulting in a delay until it can be channeled to the department most qualified to supply the information.

To assist our readers with their inquiries, we're printing a new directory on the inside of our back cover. Bureau, division, and section titles are self-explanatory, and requests for information directed to these offices will be handled more expeditiously.

Matters of purely local concern should be directed to your district waterways patrolman. His name, address, and telephone number are listed in both your summaries of Fishing Regulations & Laws and Pleasure Boating Requirements.

"Letters to the editor" regarding the magazine, its content or distribution, are always welcomed. We invite our readers to share their fishing and boating experiences, good and bad, with others.

PROUD OF IT!

I have won honorable mention in the Pennsylvania Husky Musky Club which makes me quite proud. I wish a lot more women would get interested in sharing this sport. They would then see, I believe, where some of our state tax money goes to in stocking and preserving this wonderful sport. We especially appreciate the parking space which was made available where I caught this musky. I have been fishing 25 years and have had many catches, but this is far my best and nicest catch. This musky is a delicious eating fish.

LENA M. WOLF
York

And so you should be proud, Mrs. Wolf! But would you believe that "state tax money", in the general sense, had nothing to do with "preserving this wonderful sport"? Only the taxes you pay on fishing tackle and related sporting goods are

channeled back to these activities. Other than that, only your fishing license dollars support your favorite sport. We join you in wishing more women would take up fishing - somehow they add to the scenery! Ed.

RAPID READER!

Is it possible for you to include a few more stories in each edition? Before you know it, each month's edition is read. It would be worth additional cost to Angler readers.

WILLIAM J. LISAK
Scranton

With the shortage of paper (not to mention its increased costs), Bill, we're lucky we can continue with our present 32-page format! Of course, we could use smaller type — but then you couldn't read it! For the time being, you'll just have to read slowly. Ed.

TRAVELING SMALLMOUTH!

Catching a largemouth bass and a smallmouth bass through the ice is really a trick, *especially* at Pecks Pond. I've fished there for ten years and have never seen or heard of anyone who caught a smallmouth bass there.

Your January '73 issue shows two fishermen at Promised Land Lake (last page) with a largemouth and a smallmouth bass and your February '74 issue shows one of the same fishermen with the same two bass (page 7) and states they came from Pecks Pond. I think this is incorrect and misleading to smallmouth bass fishermen. I hope you print this and clear up the mistake.

J. A. PESOT
Philadelphia

Sorry about that, J. A.; you caught us with our captions down! But - how did you know they were "the same two bass"? Ed.

WANTS ACTION!

Now that we can't get gas to go to faraway wonderful places, we need *more than ever* to have the Allegheny, Monongahela and Ohio cleaned up. Close these plants. Put 'em on welfare! I'll pay another \$800.00 a year taxes for these recipients if only I, my son (8) and daughter (3) can go fishing for game fish in this area!

DICK GLASS
Pittsburgh

Really, Dick? Ed.

"BLACK" BROWN TROUT?

Recently we were on a fishing trip and I caught some brown trout that were black in color. They were so black you could barely distinguish their markings.

What I want to know is: what caused the fish to turn this color, and does it harm the trout for eating? I have been fishing for over twenty years and have never encountered this before. I would appreciate any information you can give me.

JAMES SHAW
Johnstown

Habitat and diet unquestionably effect a color variation in trout, as well as other game fish, but it will in no way affect their desirability as table fare. We've seen rainbow trout just about as black as the fish you described, but never a brown. Ed.

NOT GOING BY THE BOOK!

In the April issue of the Pennsylvania Angler, the article "TAKING A CLOSER LOOK" stated that, "*The Great Blue Heron is a threat to any fish up to a foot in length.*" I wish you would tell the Great Blue Heron these facts!

We have a small pond 50 feet from our trailer and a Great Blue Heron cleaned out the pond of fish within a week. We had 12 trout, sixteen to eighteen inches in length!

GUTA M. ERICKSON
Emporium

MUSKY FAN —

Enclosed is my application for the Husky Musky Club. I understand that my musky is the largest taken out of the Susquehanna River in this area.

I have fished in Pennsylvania for the last 24 years and up until last Election Day, November 1972, I had not caught a legal musky. Since last November, I have fished almost exclusively for musky and have caught nine to date.

I want to commend the Fish Commission for its fine warm water program and hope that the musky program will be continued so that my three boys, now ages 6 through 3, can experience this mighty battler.

DICK PUERZER
Harrisburg

There's no stopping it now, Dick! Ed.

PEANUTS FOR BAIT

Speaking about "Fish Tales", I think I happen to have a winner! Last July, my Dad and I were fishing in Parker Dam, in Clearfield County. We were trying to use cheese for bait but it was so hot that the

cheese melted on the hook and dissolved in the water! We had no luck with artificial lures, either. When the cheese was gone, we were reluctant to leave, so we dug in our pockets to find something else to use as bait. All we came up with was a package of peanuts.

Knowing the fish would strike on nearly anything, *when in the mood*, Dad carefully baited the hook, and hoped the fish *were* in the mood. I couldn't believe it when he got a strike on his first cast. He tossed the line in again and hauled out an 11-inch catfish! We didn't get any other fish that day but we had a great time as always.

I'd also like to say thanks for the many wonderful waters we have for fishing in this beautiful state of ours. Keep up the good work!

KATHY MARTINIC
[AGE 14]
Strabane

You're right, Kathy, that is a winner! We'd give a nickel to know how Dad secured the peanut to the hook. Just think what your Dad might have caught had he been using cashews! Ed.

ANGLER PRICE INCREASE

As announced in last month's issue, in order to offset increased production costs, especially in postage and paper, the Pennsylvania Fish Commission has approved an increase in subscription rates for the Pennsylvania Angler.

The new rates, \$3.00 for 1 year, \$7.50 for 3 years, 30¢ per single copy, are effective September 1, 1974.

Present subscribers may renew their subscriptions (for a maximum of three years) at the present rate, \$2.00 for 1 year, \$5.00 for 3 years. New or renewal subscriptions at the present rates must be postmarked not later than August 31, 1974.

HERE'S HOW IT'S DONE —

Following are several suggestions that you might find useful to pass along to sportsmen in your Pennsylvania Angler:

(1.) Hip boots that are no longer serviceable can still serve as protection when hunting in rain or snow by cutting the "foot part" off, just below the ankle. The top part of the boots will protect the hunting pants and also keep water from going down into the hunting boots.

(2.) Use a small piece of rubber, from an old inner tube, draw leader or monofilament line through by applying pressure from thumb and finger, to remove any kinks or loops.

(3.) Use a small rubber band (1") and make 2 turns around the body of a hellgrammite over the collar, then hook the fishhook through the bands instead of the collar of the hellgrammite. The hellgrammite is not harmed in any way and will stay active until killed by a fish. The same method can be used on a crayfish using a little larger rubber band (caution, it is best to crush the very tip of the pincer claw, to keep from being pinched while inserting the rubber band).

WALLACE REED
Harrisburg

PEACE OF MIND —

After thirty-five years of fishing I can only say, "What else can give a man a sense of serenity, achievement, and greater peace of mind than a day of fishing?" It sure gives me that feeling and I'm sure many other fishermen. In these changing times, it really makes a person feel truly great, fishing a riffle toward evening, sun low, all is quiet, and then you hook into a large rainbow. No one around to bother you — great feeling — nice trout 21¾". I truly think you guys are doing your best . . . and no gripes on fishing fee going up. Let's preserve our greatest God-given sport. Good luck in 1974.

C. BAEHLER
Allentown

Mr. Baehler, you've taken the words right out of our mouths! Ed.

CATCHING CATFISH IS EASY

The recent article on bullhead and sucker fishing reminds me of a trick for locating bullheads that I came upon some years ago. If you are fishing a lake in the early morning or evening, when the wind has calmed and the sun is low, look for patches of bubbles about as big across as a bushel basket. This indicates that bullheads are actively feeding on a mud bottom, stirring up gas. If you can manage to anchor *quietly* within casting distance, so as not to disturb the school, you should get strikes immediately. I have often picked up a dozen or more bullheads from the same spot using this system in less than 20 minutes. In the early fall, the schools are much larger and the bubbles may string out for 30 or 40 feet but the fish are much more wary for some reason and will disperse at the slightest disturbance. This does not work so well in rivers where the bubbles are often caused by feeding carp.

CLIFTON W. RUSSELL
Mt. Vernon, N. Y.

HE DID IT!

Enjoyed "Jitterbuggers Beware" in "Leaky Boots" a few issues ago. I fished Pennsylvania waters for about fifty years; now I live in New Jersey. You answered Mr. Mel Wagner by saying you would let him hear if you ever caught a carp on a Mepps lure. Well, last summer I caught a carp on a #3 Mepps, *fair and honest*, all three hooks were in his mouth! Later in the summer, I also caught a large catfish on the same lure, again, *hooked in mouth*. I enjoy the *Angler* most of all my reading material and a few of my New Jersey friends do too.

ALBERT KLEIN
Willingboro, N. J.

We knew it would happen someday, Al, but, secretly, I had hoped to be first! Ed.

SURPRISE CATCH!

While fishing in Scotts Run Lake, Berks County, last September, my father-in-law, Paul H. Laverty, experienced the following event: He hooked a large-mouth bass that became entangled in an old anchor rope. He pulled up the nylon rope and, to his surprise, the rope contained 158 hooks, 65 sinkers, 26 swivels, 1 spinner, and 1 eight pound bell anchor. I bet a lot of fishermen did some "cussin" at this spot over the last couple years! By the way, he caught the foot-long bass also. See the photo of his catch below!

F. M. WAMPLER, JR.
Pottstown



LITTLE MAN — BIG TROUT!

My 7-year old son, Michael, caught an 18-inch brown trout in April while we were fishing near Kresgeville, in Monroe County. His late grandfather, Roy Angst, was a dry fly purist and is no doubt restless in his grave over the fact that I started his grandsons with worms and have gone now to minnows! Fly fishing will come later — I promise.

R. MICKEY ANGST
Pottsville

*Terrestrial insects abound during
the hot summer months and they make
fine bait for game fish and panfish!*



"Packy" Whipple, from Ansonia, in Tioga County, hauls in a nice smallmouth bass from Pine Creek. A spinner can often be made more enticing when a juicy cricket is added to it.

This is really "taking a closer look" . . . but that close?



Taking A Closer Look

by Tom Fegely

STREAMSIDE SMORGASBORD

As a boy I regularly patrolled the upper portions of the Saucon Creek in search of trout, suckers, eels and anything else that crawled, flew, ran, swam or hopped. Outfitted only with a dime store canepole and a matchbox tackle box in which to keep a few extra hooks, I'd collect my bait along the way.

The grassy meadow above the woodlot always proved to be a real treasure, for not only did it provide crickets and grasshoppers but the overhanging banks of the stream also permitted me to "dap a 'hopper" without being seen by the fish. By carefully parting the long grass and lowering the insect onto the water's surface where it could kick up a fuss, I'd often entice a medium-sized trout into engulfing my offering. Since that time I've also taken bluegills, perch, bullheads, crappies, rock bass and smallmouth with these leggy morsels.

Field crickets seem to be the most favored and easiest



The big meadow grasshoppers (above left) and the katydid (above right) are both good smallmouth baits in streams and rivers.

to come by. The little black models, those that chirp to greet the moon, are abundant and readily caught. Gathering a day's supply isn't difficult once you learn to recognize their haunts beneath flat stones and boards or under any debris that offers them protection. The yellowish-brown house cricket is also common and is sold in some bait shops.

Crickets can be bred and raised for year-round bait but the convenience is seldom worth the bother unless you plan on selling them. Sometimes, though, valuable angling time can be saved by gathering the crickets beforehand and storing them until fishing time. If too many are confined in a small area for an extended period they may kill and eat one another. I keep mine in an old two-gallon goldfish bowl covered with cheesecloth. A fistfull of dried grass, or leaves, along with a scattering of bran flakes, lettuce leaves, an apple slice and a small dog biscuit usually keeps the songsters content and prevents cannibalism.

Grasshoppers come in a variety of sizes and designs and should be chosen for whatever fish you're going after. For bluegills, panfish and trout I try to find a field jumping with the small red-legged grasshoppers. Those long slender meadow 'hoppers will entice creek smallmouth, large crappies and, "mashed," two or three to a hook, bullheads.

In early summer small grasshoppers are abundant since the young pass through no larval stage but hatch out as miniature adults, as do some aquatic insects including the stone fly and dragonfly.

Although seen more often than heard, the tree dwelling katydid is easy to catch . . . if you can find it. I usually ambush a dozen or so in late summer as they cling to my screen door or fiddle from a nearby bush. Like so many other insects, katydids are attracted to street and porch lights. Last September, four such giant green insects accounted for three hefty smallmouths on the lower reaches of Pine Creek — all taken with a number 8 hook and 4-

pound test spinning line. A split shot, a foot above the hook, helped keep the bait down in the fast-flowing waters.

Pond bass and sunfish don't seem to be as choosy in the way their dinner is served as are the creek dwelling fish. When farm pond fishing I'll occasionally replace a worn-out nitecrawler with a cricket that happens to wander within my grasp. Without changing hook, line, or method of presentation, I can usually count on a slab-sided bluegill or even a largemouth to sample the offering.

For summer smallmouth, a fly rod with a sinking line and number 4- or 6-pound tapered leader is satisfactory. Pinch a split shot about a foot above a #10 fine wire hook decorated with a single cricket. Let the rig follow the stream course and wait for the telltale pull before setting the hook. If action is slow, lift the rod tip occasionally and let the cricket settle back down.

All three baits - crickets, grasshoppers and katydids - are best hooked so as to keep them alive. Each possesses a convenient collar through which the hook can be guided without damaging any internal organs.

Ketchup bottles, mason jars, and even old socks will serve as storage containers although the problem of grabbing a single cricket or 'hopper without letting the others get away may warrant the purchase of a cricket box. Last summer I spent four bits for one of those containers which have a patch of screening for air and an ingeniously designed lid which lines up with a hole in the container when turned to the right spot, a single cricket can be grabbed when it appears at the opening. A twist of the lid closes it again before others can escape.

Fishing with these live baits is often a matter of personal experience and past success. Whether drifted from a bobber, mashed on a hook, delicately laid on the surface with a fly rod, or snared at the end of a spinner, this summer trio of insect musicians offers good fishing "for a song."

Want an experience you'll never forget?



Then take a float trip down the --



"River of Rapid Streams"

by John Hanna
photos by the author

As far back as the 1840s the Youghiogheny River was known as the "dare devil river" by those who plied their flatboats down its winding, rocky, twisting waters. Even though it was used as an industrial waterway, the "Yough" was also a rich source of fish for the Indians and inhabitants of the tiny mill towns that were springing up along it.

Then, a familiar and tragic story; the "Yough" became an industrial sewer and by the end of the century the fish had just about completely disappeared. In the early 1900s, long before the current environmental awareness, conservationists were lamenting its filth.

As the fish life declined, so did the small game population along the shores. Except for the barge and flatboat operators, humans shunned it as well. Hardly anyone ventured down the frothing waterway which the Indians had named the "*river of rapid streams*," where some of the region's most beautiful scenery lies.

But now, after 75 years, the "dare devil river" is on the verge of regaining its former stature. About six years ago the state began a ten-year water reclamation project which consisted mainly of sealing off abandoned coal mines that were spewing acid drainage into the watershed, particularly in the wild upper reaches. Although incomplete, the project has nevertheless made the Youghiogheny the cleanest it has been in three-quarters of a century.

Raccoon, beaver and deer have been seen again along the banks. The water in much of the upper sections of the river (but not in the more industrialized lower sections) is considered safe for humans to drink. Last August, the river was restocked with 160,000 trout fingerlings; biologists, for the first time, were confident that the young fish could survive in the water.

As all this was happening, the sports of white water rafting, kayaking, and canoeing embarked on a boom similar to that of snow skiing twelve years ago. Suddenly everyone seemed to want to experience white water. Because of its rapids, which are probably the best in the state, the "Yough" was an almost overnight sensation. Today it is one of the most popular rivers in Pennsylvania and a focal point for the state's largest state park.

It was estimated, conservatively, that in the summer



A trip down the River of Rapid Streams can be a rough experience for the uninitiated, but guides are prepared for any eventuality. They station themselves on boulders at key positions, ready with a rope for those in difficulty.

months of 1973, more than 30,000 persons traveled down the river in inflatable rubber rafts or sleek, darting kayaks — the only types of craft that can safely navigate the rock-jumbled rapids. If that sounds like a lot of people, it is! And, the saturation point might almost have been reached. Outdoor groups conducting trips down the rapids are booked up weeks in advance. There are signs that the state might limit group rafting to those who are with a bona fide outdoor club or similar organization. Individual adventurers, who meet requirements, will not be so limited.

The rapids unquestionably draw most of the visitors to the village of Ohiopyle, headquarters of the new 18,500-acre OHIOPYLE STATE PARK. It is here that the raft trips begin, about ten miles north of the Youghiogheny Dam and the West Virginia state line. The river float trip takes only one day, so anyone within 300 miles of Ohiopyle can easily make it and return home in a weekend.

There are some motels within a 20-mile radius, and the park has extensive camping facilities for those needing overnight accommodations.

Organized, guided trips are a virtual necessity for those who don't actively participate in regular white water sports. For about \$12 per person (group rates), the outfitter will provide a place in a four-man inflated rubber raft, a paddle, a life vest, a lunch, the seven and a half-mile rapids, and return transportation.

It can be a rough first experience for the uninitiated, so a lengthy lecture on river safety is also included. The "Yough's" rapids have earned it a ranking of "3" on a scale of "1-to-5". By comparison, the Colorado has a designation of "5", which is about the roughest one can find and still be navigable.

There is, of course, danger on any river; but in the Youghiogheny's case, the inexperienced, unknowledgeable and reckless boater who ignores warning signs and conditions is most likely to get into trouble. The guides have an excellent safety record. They have even been known to cancel trips down the river after a particularly heavy rain because the water is, in their opinion, too high for safety. The Ohiopyle State Park Superintendent has the authority to close down the river during periods of extremely high water.

There are six major rapid areas in the seven and a half miles below Ohiopyle. Each has been given its own name and each has its own characteristics. In between them are calm, almost languid sections so that a raft is never "in trouble" for an extended period of time.

The trip begins just below the spectacular Ohiopyle Falls, where some of the best fishing seems to be now that they have restocked the river. For the first half-mile, or so, there are shallow "rock gardens", some of which are so shallow that the occupants of a raft often have to get out in ankle deep water to free it from the clutches of a sharp rock.

About 200 yards beyond the park ranger station the guide will wave the rafts over to the shore where he will give instructions as to how the rafts should take the first major rapid area just ahead. He may also point out a strange orange color on the rocks where a small tributary stream, called Meadow Run, enters. The color is due to mine drainage pollution; the water is clean but the rocks



A raft entering a "hydraulic" where the current is forced back upon itself. This is the most treacherous kind of rapids.

have retained the discoloration and will probably do so for some time.

The first major rapids, called "Cucumber", is a short but fast ride through a narrow channel and over a two-foot ledge. A straightforward rapids — nothing unnerving.

The river then makes a turn toward the north and the banks rise steeply on either side. Few hikers venture down to the water's edge here because the rock strewn terrain is extremely rough. Then comes the last sign of civilization for the next four hours: a high railroad trestle which crosses "Railroad Rapids", the second major area.

The water here is more of a rolling current than a boiling, white cauldron; but it is longer and swift enough. Past the trestle there is a long stretch of wide calm water, time to bail out the two inches of water and time to jump into the river beside the raft and float downstream to the next rough area.

The guides stop the rafts after another mile and serve lunch on a large flat rock. The meal is carried downriver in a watertight rubber sack. Amazingly, it seems to be dry when it comes time to eat, even if the raft it was in had two or three inches of bilgewater in it!

Because it has taken such a massive effort to clean up the river, the guides stress the need to *keep it that way*. No trash or garbage is left behind at lunch. Soda cans, papers, cups, *everything*, is repacked and carried on.

The really rough rapids come after lunch. The next two major sections come close together. The first is called "Dipple", and beyond it is "Swimming Rapids". "Dipple" is the first taste of really rough water and the inexperienced rafter more than likely ends up huddling in the middle of the raft trying to keep from falling out as the raft bounces and spins in circles around the boulders.

Right behind is "Swimming Rapids," a 75-yard stretch of fast, rolling, white-capped water punctuated liberally with rocks and a phenomenon known as "*hydraulic*." Hydraulics come in all sizes and the bigger they are, the more dangerous. Hydraulics are created when fast moving water falls into a trough and rolls up the other side with such force that it folds back over itself. In effect, there are two strong currents fighting each other — in opposite directions. A swimmer, if he gets caught in a big one, may be unable to go either way — except up and down. Rafts sometimes get trapped between the two opposing currents until someone with a rope pulls it off.

The hydraulic in "Swimming Rapids" is far to the right. To the left, near shore, there is a nice smooth but fast current. After running the rapid in the raft, the rafter may want to walk back upstream and jump into the current to free-float down again. For many, this is the highlight of the trip.

A half-mile further on down is the meanest and most

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An automated system carries the boat from the assembly line to this giant warehouse.

Suspended somewhat like sausages in a smokehouse, about 2,500 boats are warehoused here.

In just a matter of minutes, a boat of any model and color can be selected and removed.

Would you believe —

The World's Largest Boat Manufacturer is right here in Pennsylvania

by Howard A. Bach

It really doesn't surprise anyone to hear that Pennsylvania is the home of some of the largest companies in America. It doesn't even surprise them to learn that some of those large manufacturers are located in relatively small communities. But mention that the world's largest manufacturer of fiberglass boats is located in Pennsylvania, and their faces go blank. They think of our Atlantic Coast area, and wonder where we make boats in that locale. Actually, the MFG Boat Co., in Union City, manufactures more fiberglass boats than any other company . . . and they are several hundred miles from the Atlantic Ocean, in northwestern Pennsylvania!

If you drove through Union City, 20 miles South of Erie, you would not be aware of the large boat factory a few blocks from the main street. But Union City is very much aware of it, for it is a major factor in the economy of this thriving community.

In the early 1900's, Union City was the home of three large hardwood furniture companies, and prided itself on being the "Hardwood Chair Capitol of the World." Today, hardwood furniture is still made in Union City, but its industry is now more diversified, including the boat company and a tool manufacturer, among others.

MFG Boat Co. was started in 1954, but its beginnings go back to the end of World War II and emerging developments in the plastics molding industry. Early plastics lacked strength, and pioneers in the industry experimented with adding wood pulp, sisal, and other fibers to the plastic to give it the needed strength. Eventually the combination of polyester and glass fibers, *fiberglass* as we know it today, provided an ideal mix for the large molded forms required for automotive applications, one of the first large markets for fiberglass.

With the growth of molding capacity, Bob Morrison, the company founder looked for additional applications and settled on boat hulls, molded on matched metal dies. Matched metal dies are exactly what the term implies, a pair of dies between which the fiberglass is molded, much as a waffle iron makes waffles. The application was a natural, for it produced hulls without seams which were highly impact-resistant, impervious to rot, moisture, and insects. Ease of repair is also a decided advantage of the fiberglass hull.

Early fiberglass boats were finished with decks and seats of mahogany, and it was this need for hardwood

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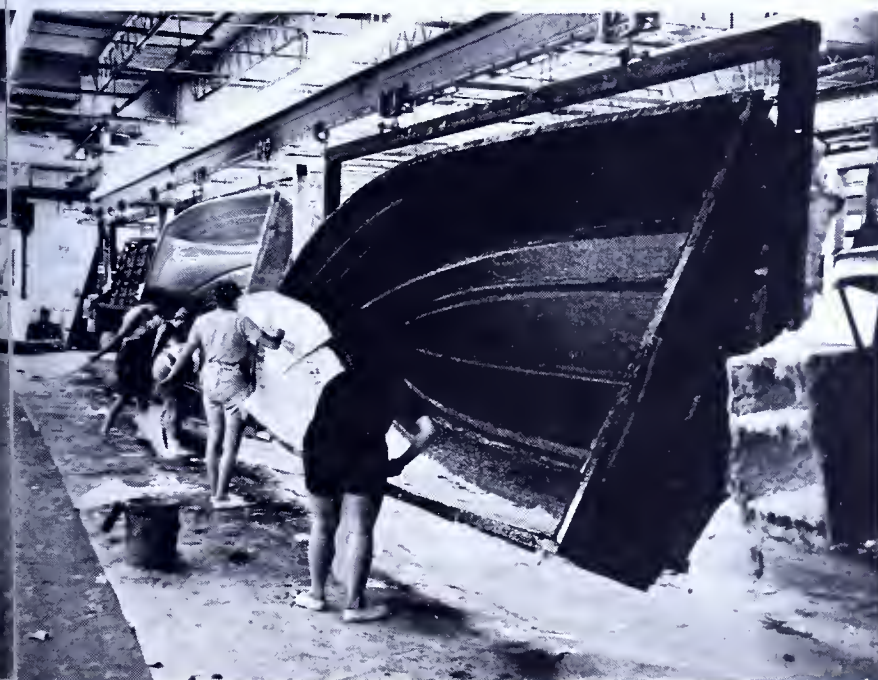
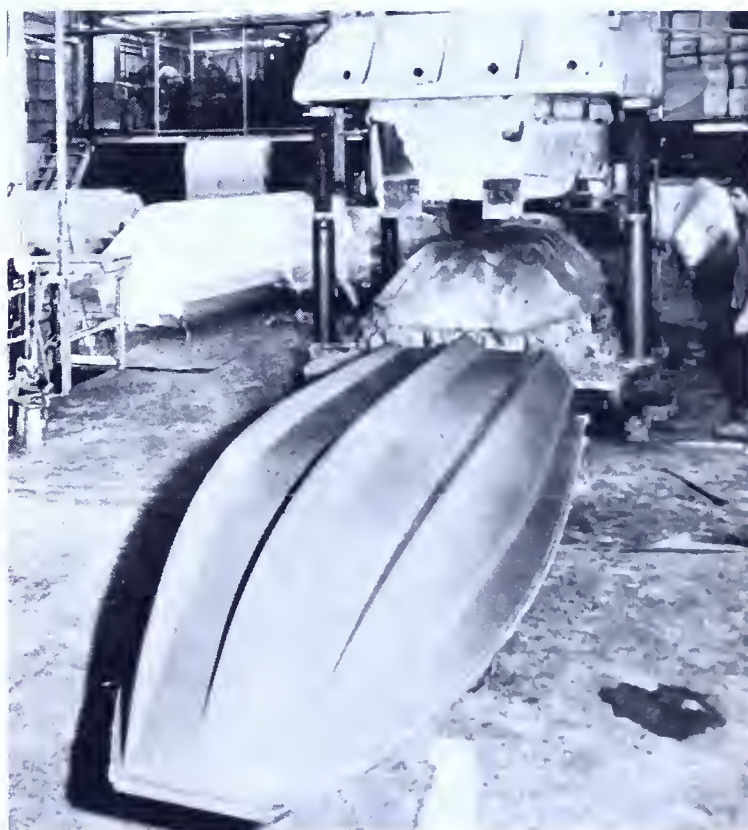
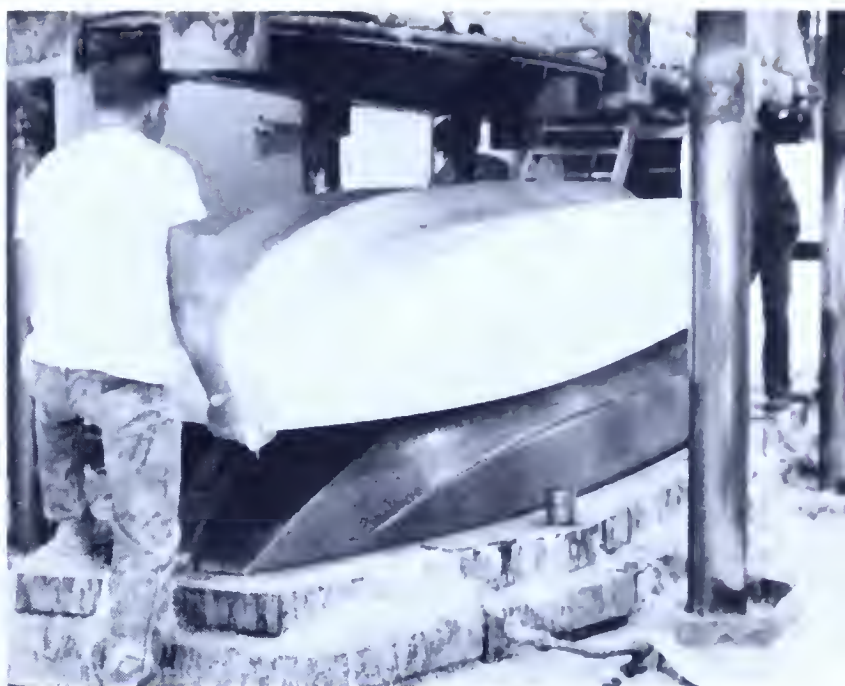
The photo above shows the rigid wire form for the "Challenger" hull. Chopped fiberglass and resin are sprayed onto the form to make the initial "blanket" for the hull.

Workmen, top right photo, are shown removing the finished hull from the matched metal dies which are not too unlike a giant "waffle iron" in operation.

The finished hull lies in the foreground, right. In the background, the hull "blanket" is covered with a veil cloth which adds the smooth, even finish to the hull.

Below: The "hand layup" process is used on the larger hulls. As each layer of fiberglass is installed, it is impregnated with resin, rolled and squeegeed to a smooth finish.

On the assembly line, below right, the boats receive all the finishing touches: installation of carpeting, decking, hardware and trim, lights and steering gear.



World's Largest Boat Manufacturer

continued from page 12.

craftsmen that brought Bob Morrison to Union City, and the furniture factory that was to become the MFG Boat Co. Their earliest boats were 13', followed soon by 15' boats, still using matched metal dies.

During the period 1963 to 1968, their boats were basically lapstrake models. Later they introduced a line of bowriders from 16' to 18', and two small cruisers. Of the models offered, three runabouts and two utilities were molded in matched metal dies, with the remaining six models being constructed by the "hand layup" process.

The matched metal die process has been compared to a giant waffle iron, and it is not unlike a waffle iron in operation. A blanket is first formed of chopped fiberglass and resin, sprayed onto a rigid wire form. This blanket is about an inch thick, and in the approximate shape of the finished hull. The blanket form is then placed on the bottom mold, and extra matting is placed on the keel and other highly stressed areas. Addition of the gunwale assembly, hardwood transom, and coloring pigment completes preparation for molding of the boat. The top die is then lowered, and the boat is molded under hydraulic pressure of 2,000 pounds per square inch, and at a temperature of 250 degrees. The result is a boat of terrific strength, with an exceptional ability to take the kind of punishment boats sometimes endure.

These boats are the fishing outboards, or rowboats, and require only seats to complete the assembly. The seats, also molded on matched metal dies, are filled with foam flotation material, and bonded to the hull in a hydraulic press, using a urethane bond.

In hand layup, the hull is formed by placing successive layers of fiberglass cloth in a mold, and impregnating each layer with resin, combined with a catalyst. As each layer is put in place, the resin is distributed with a roller or squeegee.

Meanwhile, other departments are preparing their contributions to the finished boat. The woodworking shop has built an assembly, consisting of the floor and stringers. The upholstery department, which annually turns out enough upholstered seats to outfit several large concert halls or a football stadium, had completed the seats. The deck and console, in some cases a unitized assembly, has been built on a separate line by the same hand layup process used on the hull.

After the hand layup process is completed on the hull, foam flotation is placed in the hull, and the floor and stringer assembly put in place. The hull is then removed from the mold, and started down the final assembly line. At the first stop on the line, the carpeting, deck, and upholstery are installed. In succeeding stops, the boat is outfitted with steering gear, lights, hardware and trim, windshield mounts, etc. The completed boat is then dispatched to the warehouse for shipment or storage. If it is an inboard, the drive package is installed, on a separate assembly line, before the boat is sent to the warehouse.

Each of the company's early models was named for a local town, providing both picturesque names and addi-

tional "pride-of-product". After all, if a boat were being named after your home town, you wanted to be sure it was a good boat. Some of these early names included: Corry, Union, Cambridge (Springs), Edinboro, Erie, Waterford, Northeast, and Albion, and even Celeron and Westfield for neighboring New York communities. Until recently, all boat testing was accomplished in Edinboro Lake or Lake Erie, as weather permitted.

During 1958 to 1960, as bigger engines came on the scene, new models were added to accommodate them, and the entire line was revamped to concentrate on a standard line of high value, family-oriented boats — both outboard and inboard-outboard.

Fiberglass construction had now become widely accepted, and this period found the further use of fiberglass for stringers, decks, and floors, as well as hulls, resulting in boats of unusual beauty and easy maintenance. Today, the company manufactures boats to 21', with those through 14' being molded on matched metal dies, and the remaining models by hand layup. They have 27 power models, built on 14 different hulls, and 7 sailboats, each built on its own hull. The names are more descriptive now, (Challenger, Gypsy, Sidewinder, Dingo), but the hometown spirit still goes into their manufacture.

Manufacturing boats in the quantity they do provides an exercise in logistics practically unknown to other companies of this size. Trucks and trains provide a regular supply of the many materials that go into the boats. To mention a few, they use enough plywood annually to cover 27 acres, enough polyester resin and gelcoat to fill over a mile of tank trucks parked bumper-to-bumper, and enough foam flotation material to float 5½ million pounds. Fiberglass? *Over 2½ million pounds!* Then there are the materials that add a luxury touch to fine boats, like the plush pile carpeting — of which they use about 15 acres per year.

The real logistical challenge, however, is in storing and shipping the finished boats. A product this size doesn't just pack into cartons like toasters. Although trucks and railroad cars move out of the plant regularly, it is still necessary to store several thousand boats in stock to meet dealer demands. Small fishing outboards can be stacked in outdoor storage, but larger boats require individual indoor storage, and they have devised a unique means of doing this. Except for the largest sizes, the nearly finished boats are suspended vertically, from the stern, in a huge warehouse. This warehouse will hold about 2,500 boats, which is more boats than can be docked in all of Presque Isle Bay. An automated system carries the boat from the assembly line to this warehouse, at which point the warehouseman assigns it to a spot, sorting by model and color. Even with several thousand boats hanging in the warehouse, they can select and remove any boat in a matter of minutes and with a minimum of movement of other boats. A quick finishing operation of adding the windshield and a few other items, and the boat is on its way to its new owner.

Nationally, there are about 2,300 boat builders, with about 100 of them considered major builders, and 15 to 20 of them high volume. With that kind of competition, we can be proud that the leader is a home state company, an inspiration to other companies that might find Pennsylvania an ideal place to grow and prosper.



The BOG TURTLE

**A Little Reptile
with big problems!**

by
**Kenneth T. Nemuras
&
James A. Weaver**

As pointed out by the authors, the Bog Turtle is an extremely endangered species. We trust that the information contained on these pages will prevent further depletion of the species by collectors unfamiliar with its identity or the statutes governing its protection in this state. Catching, taking, killing, selling or offering for sale, or purchasing, are all prohibited in Pennsylvania—PENALTY: \$500.00!

When the warmth of spring penetrates certain sphagnaceous swamps, marshy meadow streams and soggy pastures of our eastern United States, it awakens from hibernation a relatively small and seldom seen turtle known scientifically as *Clemmys muhlenbergi*. Emerging from its long months of winter sleep, the "Bog Turtle" moves sluggishly through its quagmire of tiny rivulets and blankets of moss, embedding itself occasionally in the matting of a grass tussock to bask motionlessly in the weak rays of an early April sun. As the hours pass it may go unnoticed among the fresh green ferns and grasses that infiltrate the brown and decaying leaves of its boggy environ, and with the on-coming chill of evening it slips quietly back into the mud and substrate.

It might seem like this very rare and curious little turtle, hidden away among the undergrowth of sometimes isolated tracts of swamp or remote mountainous streams, would face few dangers in its natural surroundings. But the fact is, Bog Turtles are becoming increasingly scarce in many areas as more and more of their natural habitat disappears.

In North Carolina, for instance, a road is being built; it winds across the Carolina highlands and eventually pierces a mountain slope, spilling tons of earth and rock over a miniature swamp. The Bog Turtle and its environment are soon displaced by a layer of concrete. Along the Blue Ridge crest in southwestern Virginia a farmer decides his soggy pasture is too wet and constructs a network of trenches to drain off the moisture. The water level drops, and a turned-up Bog Turtle lies dead in a mucky channel. In Maryland a golf course invades the



An adult Bog Turtle. Note the diffusion of the temporal blotch. On unusually colorful specimens, this blotch is a very bright yellow-orange.

marshy perimeter of a stream. Another Bog Turtle habitat is threatened. And in Pennsylvania a highway bypass has fractured one colony, while the burning of a grass tussock patch has smoldered another. These are not examples of what might happen to the Bog Turtle—they are examples of what *has* happened!

Unfortunately, Bog Turtles are sometimes plagued even by the forces of nature. When tropical storm Agnes ripped across the Atlantic Coast during the summer of 1972, the flooded rivers and streams in Pennsylvania and northern Maryland submerged a number of colonies under several feet of water. And undoubtedly, it was the prehistoric labor of nature as well—the Pleistocene Ice Ages and climatic changes—that molded the presently sporadic and sometimes confusing distribution of this North American chelonian.

But exactly what is the Bog Turtle and why today does it face the problems of habitat restriction, exploitation, colony destruction and even the threat of extinction?

It is not a very large turtle—the majority barely reach four inches. Orange temporal blotches are its most conspicuous feature; otherwise the generally brownish coloration is often dull and the shell sometimes ragged or worn smooth from years of burrowing into the mud. Occasionally, individuals might have a somewhat vivid horn-colored pattern splashed across their carapace.

Bog Turtles prefer grassy and mucky or shallow-bottomed swamps, although on occasion they do enter deeper water. They are capable swimmers and have the ability to feed both under water and on land. This species is frequently associated with sphagnum bogs or sphagnum conditions, but cow pastures saturated with grass tussocks are also a typical *muhlenbergi* habitat throughout much of its range.

Many of these “tussock bogs” are spread across the rolling farm land of southeastern Pennsylvania much as they were when *Clemmys muhlenbergi* was originally dis-

covered here in the late eighteenth century, but the turtles are becoming far less common. The species has also been found in the extreme northwestern part of the state, but there may be only a few relic populations remaining in this region today.

Elsewhere, Bog Turtles occur sporadically in northern Maryland, Delaware, New Jersey, parts of eastern New York and the Finger Lakes area, plus the westernmost fringes of Connecticut and Massachusetts. Farther south, they are scattered among the higher elevations of western North Carolina and extreme southwestern Virginia, and inhabit a small portion of the North Carolina piedmont.

In some parts of its range the Bog Turtle is at home with the two other eastern members of its genus, the Spotted Turtle (*Clemmys guttata*) and the Wood Turtle (*Clemmys insculpta*). All three of these turtles have had many of their wet and soggy habitats drained or completely destroyed by suburban expansion during the last decade.

The Bog Turtle is content to spend much of its time leisurely absorbing the sun’s inviting rays, especially during its first weeks of spring activity. When approached, some make a hurried attempt to bury into the mud; others withdraw into their shells and remain motionless. At other times they are busy searching for food along shallow rivulets that wind in among the grassy tussocks. Bog Turtles are omnivorous in their feeding habits. A large percentage of their diet consists of various insects, while berries, pondweed and sedge seeds, beetles, butterfly larvae, and sometimes carrion, are also consumed.

As the weather grows warmer, the Bog Turtle’s mating instincts are awakened. Often the females may have to be “sought out” and pursued by the more aggressive and usually larger males. On occasion they have been seen mating in shallow water or mud, either in soggy grass or at the base of a grass tussock. In most cases the water level not quite or just barely covers the shell of the fe-

In early spring, when skunk cabbage and fresh green grass appears, the Bog Turtle will bring to an end its long winter hibernation.



male. At times too, the female will appear to be burrowing headfirst into the mud, almost as if distraught by the male's attempts to copulate.

Natural nesting of this species has been unobserved to a large degree. It would seem, however, that the female selects an open or elevated site for her nest, such as the top of a grass tussock, into which she deposits three to four, or possibly five white elliptical eggs. Egg-laying usually takes place in the evening from early June into July, and it takes about eight weeks for the miniature Bog Turtles to hatch.

We sometimes find dead turtles with bullet holes in their shells and suspect that hunters might occasionally use them as targets. Cows and horses which often graze in pasture habitats could conceivably inflict injuries on some turtles, not to mention the various small animals that menace or prey on the Bog Turtle, its eggs and the young.

But by far, the greatest threat to the Bog Turtle's existence is habitat destruction. This is especially true because the Bog Turtle, unlike many other species, is restricted to certain kinds of habitat and is not known to fare well in dissimilar environments. Painted Turtles, for instance, are at home everywhere from ponds, marshes and canals to streams, swamps and inlets. Not so with the Bog Turtle — when its grass tussock patch is destroyed it is not likely to repopulate in a nearby lake or river. We may not know exactly how many suitable habitats are left today, but we do know each colony that succumbs to land development, road construction or some similar fate cannot be replaced.

Too, the Bog Turtle enjoys (or perhaps "is burdened with" would be a better term) the distinction of often being labeled North America's rarest chelonian. This has created an almost ceaseless demand on the species from hobbyists, collectors and dealers alike — a situation which in some cases has led to the over-collecting of

various populations throughout the turtle's range. During the past few years protective legislation has been enacted in a number of states where the Bog Turtle occurs as a deterrent to such exploitation, but unfortunately this has not eliminated the more serious problem of colony destruction.

In many cases colonies are destroyed indirectly by interruption or modification of the colony's water supply or drainage. If Bog Turtle preserves could be established (such as in New Jersey where several colonies have been purchased with personal funds), this would necessitate the outright acquisition of all land critical to the bog environment. Several private conservation groups that exist today have made possible the establishment of this sort of wildlife preserve for many species, deriving much of the money necessary for such purchases from the contributions of concerned citizens. Another less commonly recognized means for controlling the fate of important Bog Turtle habitats might be the direct negotiation with local township, county or regional planning agencies. In a few instances this has been successful in altering the scheduled destruction of some colonies.

Consideration must also be given to the less obvious but certainly potent effects of pollution on not only the Bog Turtle and its habitat, but on other forms of wildlife as well. Even the best contrived preserve could conceivably be affected by the direct application of pesticides or unpredictable transfer of pollutants over a long period of time.

Too, a sad fact about our current way of life is that there may not be enough room, or resources available, to continuously support the abundance and variety of life that was known but a few generations ago. It may therefore require a strong effort to conserve both our endangered species and those which are not yet threatened.

In Pennsylvania the Bog Turtle has been protected



Swamplands, the natural habitat of the Bog Turtle, are frequently drained by ditches as man continues to "invade" for his own purposes.

since 1972 when the Pennsylvania Fish Commission established regulations prohibiting the taking of this species without a permit. Offenders then could be fined \$10 for each specimen taken, plus an additional \$25 if they do not have a valid fishing license. In early 1974 Pennsylvania legislation provided even greater protection for the Bog Turtle, including more substantial fines for violators — \$500.

In nearby Maryland the Bog Turtle became fully protected on October 12, 1972. The coverage provided includes a ban on the taking, transportation, possession or sale of this species within the state under a maximum fine of \$1000.

In the state of New Jersey the Bog Turtle has received some degree of protection as an "endangered" species. It cannot be possessed without a permit, and generally such permits are not issued for any exotic or native species listed by the U.S. Bureau of Sport Fisheries and Wildlife.

New York, which was among the first states to recognize a need for the conservation of certain turtles, also offers major protection to *Clemmys muhlenbergi*. The species is protected under New York's Fish and Game Law. In addition, both those species which are listed as endangered under federal law and those considered endangered in New York are protected by the Harris Act, which prohibits their importation, transportation, possession or sale.

In Connecticut the Bog Turtle is included among various forms of threatened wildlife listed by the Department of Environmental Protection, and the species has been protected under the state's Hunting and Trapping Regulations since September 1973.

The few remaining states in the Bog Turtle's natural range presently do not have protective legislation of any kind. Federal laws such as the Endangered Species Conservation Act of 1969 (which should be improved by new Endangered Species legislation enacted in December 1973) and the amended Lacey Act protect, from im-

portation and interstate commerce, various forms of wildlife that are listed as *endangered* by the Department of the Interior. The Bog Turtle was included on this list earlier as a *rare* species, but more recently only the *endangered* category has been maintained. It is true that the Bog Turtle still displays an occasional abundance in some areas, largely because this species is dispersed throughout the segmented portions of its range in varying population densities. And while some of these colonies are not in immediate danger, many are on the verge of becoming endangered — especially in rural areas where the growth of expanding cities is a threat to their survival. Other Bog Turtle populations are not only endangered, but are either in the process of being, or already have been destroyed. Seemingly, the best time to direct attention to the plight of this species is now, before the undisturbed populations eventually succumb also.

Because of the insurmountable problems that it is confronted with, the Bog Turtle is frequently quoted as a prime candidate for extinction. It is quite possible that regardless of what protective steps are taken, the species will gradually reach this denouement anyway, both through ecological changes and the natural process of evolution (some colonies today are known to be smaller and drier than they were at the beginning of this century, although we feel that such changes do not nearly equal the accelerating number of colonies destroyed by man). The last remnants of the Wisconsin Ice Age during the Pleistocene left New England only as recently as 10,000 years ago. The Bog Turtle was an ideal occupant of the massive mossy swamps that were left behind by the retreating ice sheets, but the northward procession of hardwood trees and changing physiological features have slowly resulted in the strangulation and shrinkage of many such habitats. Still . . . perhaps by legal protection and various measures of conservation, we can help prolong the existence of this rare and interesting little turtle.

Keystone Camping

by Thad Bukowski

CAMPING BACK IN HISTORY

If you camp at PINE GROVE FURNACE, which has a densely wooded primitive area, probably the most noticeable aspect of your visit will be that you are rubbing elbows with history.

The huge old brick stacks of charcoal-fired furnaces of bygone years are nearby and preserved as picnic sites in the 637 acre park located in southern Cumberland County. One of the two park lakes, 1.7 acre Fuller Lake is a leftover iron hole from early pioneer mining. When it began to fill with water faster than our early forbears could get their ore out, it was abandoned.

Almost every day, some visitors to Pine Grove are backpackers, many of whom hike the entire 2,000 miles of the Appalachian Trail which extends from Maine to Georgia and courses through camp.

Park Superintendent George Weber reports, "They stop and chat for a few days. After all, they're in no hurry. It usually takes them two or three months to get across the trail, so they see no reason for speed." Weber is friendly and loquacious and his typical "Pennsylvania Dutch" makes interesting listening. He informed us that the park's 74 camping sites are all primitive, have tables, fire rings, and cold running water. A dumping station is available.

Swimming is the common park recreation for many families who visit the rambling and rustic wooded areas of the park, usually by Friday afternoon. Laurel Lake gives more elbow room, since it is 25 acres in size, but the sandy beaches are still quite crowded. The lakes, campgrounds, and furnace groves are somewhat separated from each other in the park. Canoeing and sailing are also enjoyed on Laurel Lake. Both Laurel and Fuller are stocked each year with brook, rainbow, and brown trout as is Mountain Creek which supplies the water for Laurel. A variety of wet flies is usually successful in the nearby streams, according to Weber, but he also confides



Picnic sites include old brick stacks of charcoal-fired furnaces of bygone days.

that cheese is a better bait.

If the angler is a really serious trout, the last statement is heresy! The fact is that just a few miles to the north of camp is the *Mecca* for trout — the real stream to which one should make an occasional and ritualistic escape, for here is the commonwealth's famous Yellow Breeches Creek. It is reached from camp by traveling north through Michaux State Forest along Rt. 233. The gorgeous forest with its stately hardwoods and pines was named after famed French botanist, Andre Michaux, who explored the region in the late 1700s. The old iron furnace, still a relic of the park, dates back to 1764.

Just north of Michaux, the Yellow Breeches may also be reached by Leg. Rt. 21005 which heads in a northeasterly direction for a number of miles along Mountain Creek where it merges with Pa. 34 at Hunter's Run and thence to the "Breeches". For the camper looking for lake water, Birch Run Reservoir is a short distance from Pine Grove Furnace. Bank fishing is permitted, but boating,

swimming and picnicking are taboo at the 53 acre reservoir which is the water supply for Chambersburg.

Pre-season trout stocked this year in Laurel Lake numbered 1,300. 19,000 were placed in the Yellow Breeches, 3,800 in Mountain Creek, and 1,600 in Big Spring Creek.

Bonnie Hershey, who conducts Friday and Saturday interpretive nature park programs, has some fine displays at the park. Many early day iron artifacts add to the perspective one might get of American history. Shown here are such items as old cannonballs, wagon wheels, pig iron molds, door sills and iron grave markers.

A nearby private camping area, including 110 acres on Mountain Creek, assures campers that they will not be stranded without a site if they head in this direction.

The park also has seven sites for group campers and can accommodate 280 people with 35 per site. Scouts, church groups, and nonprofit organizations avail themselves of the opportunity.



I Still Can't Touch The Worms!

by Dale E. Wyngaarden

Bill loves to fish. He's been fishing since the day he could hold a pole in his hands and fish for wooden trout in a bucket. And, he's *good*. Bill can take a fish out of a hole that everyone else has abandoned in disgust. He fishes because he enjoys the woods and the quiet. He fishes to try new techniques and improve old skills. He would rather fish in his spare time than do anything else. So, ever since I met him I've been in danger of being a fishing widow—and we're not even married! Therefore, one day last spring, we decided to become "fishing buddies" and I found myself in a State College sporting goods store buying a fishing license. *Me*, born and raised in the crowded suburbs of New York City! *Me*, used to stagnant, reeking streams and dead fish in supermarkets and museums! Yes, there I was with all of my nineteen years of non-outdoor living standing beside me laughing in my ear. "I'll try anything once," I kept saying to myself.

Actually, I was excited. I'd tagged along after Bill once or twice when he'd gone fishing and it looked like fun. He tried to give me a crash course in everything about fishing before trout season started. I was busy memorizing the rules and regulations handbook; studying the seasons, sizes, and creel limits table; and, learning to identify fish with my handy-dandy guide, "*Identifying the Common Fishes of Pennsylvania*" (Buss and Miller). After all, I had to know what I was catching, if, indeed I would ever reel in anything besides an old boot. That is all they ever catch in cartoons, isn't it?

Anyhow, I was learning new things everyday—how to tie on a hook or lure, how to kill a fish, where to find fish, and so on. Then I took a practice run at a FISH-FOR-FUN project, Fisherman's Paradise, near State College, where Bill and I were both attending classes at the Pennsylvania State University. I was practicing; Bill was cooling off his pre-trout season fever. For three hours I awkwardly cast the gaudiest flies I had into the creek. I was getting a feel for the rod and I didn't really want to catch anything that I'd have to touch to release. I wasn't used to the idea of handling a live, cold, wet, floppy fish. I didn't want to

catch anything, but I knew Bill would be proud if I did, so at least I kept casting into the water with enthusiasm, when my line wasn't snagged in the trees. It was easy *not to get any bites*, because the fish at such projects have been thrown every type of artificial lure and have quite a healthy respect for them. My concentration convinced both of us that I was genuinely interested in the sport, even if I was a little squeamish.

Our preparations for the opening of trout season increased with the approach of *the* day. We decided to go to Bill's house so he could fish "his" creek, Deer Creek, with his dad. We did some last minute shopping with a friend for all those little extras that fishermen, like our friend, seem to need to buy new every year. The guys were joking around. One comment, accompanied by laughter, was made that I would remember and later take to heart. "The guy who doesn't catch a trout on opening day has to be really bad."

With growing excitement, I bought a pair of hip boots three sizes too large — when they're on sale one can't be choosy about such a minor detail as size. Bill likes to fish the out-of-the-way stretches of a stream and the only way to get to them is to lunge right in — feet first, hopefully — and start wading.

I was all ready and impatient to get started to see if fishing was as much fun and relaxing as it's supposed to be. I had a lot of waiting to do. I wasn't going to fish in the morning because I'd been warned about the shoulder-to-shoulder crowd of zealous, one-day-a-year fishermen that would be there. I waited for the afternoon to come and then I had to wait for Bill to get all his gear slowly and carefully stowed in the proper containers in the proper pockets of his fishing jacket.

Finally, we set out eagerly to the creek in our "space-boot" hip boots, laden with our gear. Little did I know that in a few short hours I'd be trudging back with my chin on my chest, shedding the tears of complete frustration. Bill wanted me to catch a fish so that I could experience the thrill of an energetic trout fighting at the end of my line and the pride of carrying one home in my creel. In fact, my "helpful" boyfriend wanted me to get one so much, that he stood constantly by my side giving me a steady flow of criticism and tips and even taking the rod from me to show me exactly what to do. It was a nightmare! I got so nervous and self-conscious, I was ready to throw everything into the creek and head for the nearest hole. We had to call it a day when the pressure to catch a fish made impossible any enjoyment of what I was doing.

As far as I was concerned, I was a failure. That simple comment, made a few days earlier, came back to haunt me. I must be "really bad." I was ready to tear up my non-resident fishing license and spend the rest of my life far away from any body of water larger or more turbulent than a bathtub. But Bill apologized for the way he'd acted, explaining that he was anxious for me to catch something so I wouldn't lose interest in a sport that takes time and patience to master and enjoy. He begged me to give *him and fishing* another chance. With reassurances that everybody really didn't catch trout on the first day of trout season, I dried my eyes and decided that I couldn't give up that easily on something after just one bad day.



The next morning, bright and early, in an air so cold it numbed the fingers and froze the water on the line, I tried again. And I enjoyed myself. Bill concentrated on his own fishing. He decided that he'd given me all the background I needed and that I was ready to experiment on my own. But when I got tired of fishing with corn, salmon eggs, and flies, with no results, he put an ugly, squirming worm on my hook! The thought of lacing a hook through an actively wriggling worm does not appeal to me. Bill was within hailing distance in case I needed a net to land a fish or help killing one — I knew I'd never be able to do that and keep down the coffee I'd had for breakfast. When I actually got a bite, which I lost after a vigorous ten-second fight, Bill was far upstream and didn't get to see it. The excitement of feeling those frantic tugs on my line and seeing "my" trout leaping and thrashing in the water suddenly made me understand the force that gets a person out of bed with the sun and draws him to the waters of his favorite creek.

When we got back to State College, Bill found a group of guys who were willing to go fishing every morning that they could get a ride to a creek. I was busy attending classes, so once again I was becoming a lonely woman. And the days that I could go with them were terrible. Bill's friends liked to find the wildest, most overgrown small creeks to test their skills. And they stayed for hours. I quickly got annoyed crawling through dense underbrush with a long, unwieldy rod, and oversized cumbersome boots. There was no room to cast in these creeks, so my muscles complained about all the reaching and bending and standing still that I had to do to put my

bait where I wanted it. I wasn't getting any bites for my labors, either. The best I could do was to get snagged — again and again. But, I kept at it, because I wanted to be with Bill and learn to appreciate the outdoors as he does. I spent many hours, though, sitting on a log or rock, telling myself how miserable I was.

Bill made a few suggestions to help me solve my problem. We both realized that all of the enjoyment found in fishing is not in catching anything, but in being outside and in contact with the peace of nature. I began to search for and identify wildflowers with an illustrated field guide. Time and again, Bill and I shared the excitement of finding beautiful flowers, like a moccasin-flower — or painted trilliums at Black Moshannon Creek, on short hikes in the vicinity of the creeks we were fishing. Knowing a lot about wildlife, Bill could often identify the flowers we saw before I could turn to them in my book. But just as often, with the aid of the book, we could learn new things together, like the type of soil through which each creek cut its bed. The experience was great for both of us. I also brought my sketch pad and charcoals to while away the times between fishing attempts. My fishing became much more relaxed, because I could fish as long as I wanted to and take a break when the fish needed a break in their lessons on what not to bite. The occasional hit I got was inspiring. It made me think that perhaps there were a few fish hiding in the creek. I had another bite at Black Moshannon Creek on a fly that Bill had tied. This one was "huge" and had already been missed by one of the guys we were fishing with. What a boost to my ego! I looked excitedly around



for Bill, and lost the trout. One of these days, I'll learn either to set the hook or take a firm grip on the pole and fling my catch onto the nearest bank!

I've been bitten by every fly and mosquito in the book. I've lost hooks and bait and spinners in countless snags. I've always come home with an empty creel. But I'm hooked (no pun intended) on the fishing atmosphere. I like to be outside, wading in a cold, clear, flowing stream with the sun on my back and a breeze in my face, sneaking my bait under cover that trout like so well. Even though I do come home empty-handed, I know I've learned a little better how to handle my equipment and I know that the day will come when I will proudly pull a trout out of the water. Knowing that I can get a few bites and hits, I'm convinced that that day is not far away. I

like to explore and sketch the places I see around a creek. I like the slow pace of the fishing day. And, most of all, I really like to brag about the lunker that always seems to get away.

My future in the sport looks good. I've learned to enjoy the most pleasurable pastime in my boyfriend's life. We use the same equipment. We're building memories together. We're sharing nature and time and happiness. What more can fishing buddies ask for? I'm glad I met a guy who was born with a rod in his teeth and was willing to show me what fishing Pennsylvania's beautiful creeks is all about. However, no matter how many times I've gone and will go fishing, no matter how many fish I've missed or might one day catch, *I still can't touch the worms!*

"River of Rapid Streams"

continued from page 11.

dangerous rapids, called "Double Hydraulics." Here, there are two large hydraulics, about ten feet apart, and if anyone is to fall out of the raft, this is the place! The only way to get through safely is to paddle like mad to maintain enough speed through the cross currents. If there isn't enough speed, the raft will certainly turn sideways and flip up on its side, throwing the occupants into the tumbling water! The guides are always prepared for this eventuality. They station themselves on boulders at key positions, ready to throw a rope to anyone in difficulty.

One rapid remains. It is called "Schoolhouse" because of a boulder the size of a country schoolhouse plunked down conveniently in the stream. Sometimes a raft hits the boulder head-on and can be pinned there by the tremendous force of the water. One raft, the guides say, was stuck there for two hours, defying all efforts of a gang of rope-tugging guides to free it!

The guided trips end another half mile or so further on, at a point called River's End. There are more rapids on

down stream, but they do not compare to the ones above. The "dare devil river" goes on, though, for those who wish to try it on their own.

There are four outfitters who conduct guided trips down the Youghiogheny. They have offices in or near Ohiopyle. Scheduling information is best obtained by writing or calling them. Although their requirements vary slightly, most outfitters won't take anyone under twelve years of age. They also demand a deposit with reservations, which is refundable under certain conditions. Weekend trips are run from May through October and weekdays trips from June through August.

FLOAT TRIP OUTFITTERS:

Mountain Streams and Trails Outfitters, Box 106, Ohiopyle, Pa. 15470 Attn: Ralph McCarty

Laurel Highland River Trails, Route 381, Box 86, Mill Run, Pa. 15464 Attn: Edward G. Coleman

White Water Adventurers, Box 31, Ohiopyle, Pa. 15470 Attn: Robert Marietta

Wilderness Voyageurs, Inc., Box 97, Ohiopyle, Pa. 15470 Attn: H. Lance Martin

In between the Youghiogheny's rapids are calm, almost languid sections so that a raft is never "in trouble" for very long.





HE REALLY TRIED!

One day in class I was expounding on the fact that the Fish Commission was crowded for time in getting the license buttons out and that they were not the most secure pin that was ever manufactured. I went on to say that if they should be lost, a *facsimile* was acceptable — as long as it looked reasonably like the original.

An ardent fisherman, and student of mine, saw me the other day and told me he had lost his button but that he had made a *facsimile*. He proceeded to show me a wooden button, *the exact size, carefully sanded to the proper bevel on the edges, properly painted to the exact shade of red, and with a safety pin firmly cemented to the back. Across the front, very carefully printed with a small brush on a white stripe was the word: "FACSMILE"!* (His spelling, not mine.) After all that work, I just didn't have the heart to correct him then! I'll get it done before trout season.

Bill Huffnagle

*Special Waterways Patrolman
Columbia/Montour Counties*

SPECIAL ATTRACTION, INDEED!

The people of Franklin County have always felt that their county had some special attractions to folks from other parts of the country. One recent testimony to the fact that Franklin County does indeed attract sportsmen from far away, was when Deputy Waterways Patrolman Maynard Burkett checked an *airboat* navigating on the Conococheague Creek. During the check it was noted that this boat carried a Florida registration. That's *real* attraction!

Larry V. Boor

*Waterways Patrolman
Franklin County*

IS IT WORTH IT?

The Wallenpaupack Trout Club is attempting to raise trout to be stocked in Lake Wallenpaupack for all fishermen to catch. These past few years they have raised and released about 8000 trout each

year. These fish are from 8 inches to 18 inches and require a lot of care to get them to this size. There is no cost to the fishermen unless they become a member of the club by paying a \$5.00 membership fee. There are about six or eight men that do all the work required, such as feeding, cleaning, and maintaining the hatchery — and this takes a lot of their time and energy. The hatchery started out as a "one tank" operation and has expanded to five tanks and a large spring area. Time and material were spent building some of the tanks and the lids for their tops — to keep the predators out. The large spring is surrounded by a cyclone link fence, 6 feet in height. The operating and maintenance expenses for 1973 were \$794.59 for feed, and miscellaneous expenses were \$41.99, for a total of \$836.58. We have a total of 72 members so you can see that we have to spend a lot of other time trying to raise money to keep operating. We received 5000 rainbow trout and 5000 brown trout fingerlings from the Fish Commission in June of 1973 to raise for release in 1974. Now, what I can't understand is this: We have been the victim of numerous break-ins and we have had a good many fish stolen so far this past 9 months. We have just finished counting the remainder of the fish and we have, at this time, 1668 brown trout and 940 rainbow trout left for the sportsman this year! These are the only ones left in the tanks. There also are a good many large trout missing from the spring. The lids on four of the tanks have been damaged or destroyed by the thieves and the link fence has been cut twice. **What kind of person is it that will steal from everyone like this?** If these thieves are that hungry, I would be willing to donate to their cause so that we can go on with the raising and releasing of fish for all to enjoy.

Joseph E. Bartley

*Waterways Patrolman
Pike County*

NO CLOSED SEASON—

Things are not always what they seem to be. Deputy Waterways Patrolman Stanley Long can testify to this after what he witnessed while patrolling Lake Muhlenburg before the first day of trout

season. The small lake had been stocked with trout and, naturally, was closed to fishing until the first day. Mr. Long thought he had captured a culprit when he spied a man standing on the shoreline with a fishing rod. His line extended out into the lake and it looked like he was expecting a bite any second. When approached by Deputy Long, he showed no concern as he was told that fishing in the lake was illegal. He simply asked, "Do you see *what* is on the end of my line?" Mr. Long then had a new experience — it was the first time he had seen a sailboat on the end of a fishing line!

Fred Mussel

*Waterways Patrolman
Lehigh County*

BAD NEWS!

Some people go to extremes to protect the trout that we stock pre-season. A few days before I stocked one of my mountain streams, one of the local high school boys called and asked if he and a friend could stock some trout in a remote area of the stream. I replied, "Yes, if I will be given some help watching these trout before the season." After the fish were stocked, the boys must have conceived a plan to really "Sock-it-to" anybody who tried to get any of the trout before season. There is only one way to drive into the area where the fish were stocked and the boys must have had an idea that someone was going to try and get some of these before the season. So, they buried two pieces of siding, with some eight-penny nails driven in them in the road. Of course, they never thought that the waterways patrolman used this road to check for pre-season fishermen. End result was a full day spent fixing **four flat tires!**

Joseph K. Houck

*Waterways Patrolman
Fulton County*

IT'S HARD WORK!

I do not believe that many fishermen realize what some of the local sportsmen go through in helping stock their favorite streams. On April 6, 1974, while stocking Trout Run, at least four different times 4-wheel drive vehicles were stuck and had to be pulled with the other 4-wheel drives. The fish truck was bogged in mud so deep that three 4-wheel drives, hooked in tandem, could not budge it! It took a small bulldozer to pull it out. A bridge was also built and many trees and brush had to be cut and removed from the roads so the vehicles could get through!

Edward W. Brown

*Waterways Patrolman
Clearfield County*

ENROLL NOW!

Just recently I stopped in a sporting goods store in my hometown of Tamaqua and had the following story related to me by the proprietors of the establishment. A gentleman came into the store brandishing a recently acquired rod, line, and reel outfit, requesting to be shown why the rig did not operate properly. He had a *fly rod* with an *open faced reel* attached, with the open face pointing to the rear of the rod! If you read this and not see the humor in it, you too should plan to attend one of the Fundamentals of Fishing courses offered in each county by your waterways patrolman. We can guarantee that we will get your line heading in the right direction!

Claude M. Neifert
Waterways Patrolman
Luzerne County

PEACE — AT LAST!

Law enforcement work in the Fish Commission sometimes brings great feelings of peace and contentment.

A fisherman came into my office wanting to pay a "fish fine." Nothing unusual about this violation except that it took place **21 years ago!** This defendant wanted peace with himself and his God, so he came in to pay the fine. I spent almost half an hour trying to convince the man that he would not have to pay the fine since the "statute of limitation" had expired. However, this man insisted, so I took his signature on a field receipt and collected the fine. This makes you feel that the fishing public is truly the greatest.

James E. Ansell
Waterways Patrolman
Mercer County

WHATEVER TURNS 'EM ON!

This story was related to me by Bud Goldsmith of Wallenpaupack. It seems that his grandchildren went ice fishing and were not having any luck, when another young fisherman came out on the ice, cut his hole, and started to fish. The first thing you know, he had caught a fish, rebaited, and then proceeded to catch another fish. He was asked again and again what he was doing that the others weren't doing, but he still wouldn't say anything. This kept up and finally he must have felt sorry for the other fishermen so he looked at them, removed his bait (**worms**) from his mouth and said, "*You have to keep your bait warm!*"

Joseph E. Bartley
Waterways Patrolman
Pike County

CLEAN SWEEP!

The local Boy Scout troops from Conneaut Lake had decided that, for their conservation training this year, they would pick up litter along the shores of Pymatuning Lake once each month. On their first adventure along the Spillway area, in March, in one Saturday morning they gathered 142 bags of litter which included cans, bottles, etc. My hat is off to such an enthusiastic group of boys. In conjunction with this same project, during this past weekend the Local J.C. Club from Linesville picked up litter along the highways from Linesville to the Spillway area. And, again I must say, "Thanks for a job well done." The tourists and fishermen that use this area should take a lesson from these younger people and help keep this area clean.

Warren L. Beaver
Waterways Patrolman
W/Crawford County

NAME WITHHELD— REASONS OBVIOUS!

Last April, a man from McKeesport contacted me late Friday night (before the Saturday opening of trout season) stating that someone had stolen his license that he had just bought at Megela's Sporting Goods several hours earlier.

He hoped to get permission to fish in Fayette County on opening day but it was too late to obtain a duplicate license at the issuing agent. Subsequently, he was told to contact WWP Beatty for permission, which I feel that he did.

Several days later it was learned that the poor angler's wife had hidden his new 1974 license as she didn't want him to go fishing the opening day. This looks like grounds for a divorce!

Jim Smith
Waterways Patrolman
S/Allegheny County

RAYSTOWN'S THE RAGE!

The new Raystown Reservoir in my district has been stocked "to the hilt" with over eleven million fry and fingerlings—walleye, northerns, muskies, largemouth bass, and striped bass. This, on top of an already excellent existing population should provide Pennsylvania fishermen with a real paradise as this new water area develops.

Official opening of the reservoir is scheduled for the early summer of 1974.

James T. Valentine
Waterways Patrolman
Huntingdon County

SO WHAT ELSE IS NEW?

While refueling the car in Beaver one afternoon, I struck up a conversation with a young gas station attendant who is an energetic fisherman. "Where were you today?" I asked. "Why?" said the lad. "I just stocked Bradys Run Lake with some nice ones," I offered. To this the young man replied, "You can't catch 'em yet!" "I know," I answered. There was a slight lull for a moment and then the fellow exclaimed, "By the way, fishing licenses went up!" I countered with, "Yes, I know, so **did the price of gasoline!**" The perfect squelch!

Don Parrish
Waterways Patrolman
Beaver County

TROLLING? IN PINE CREEK?

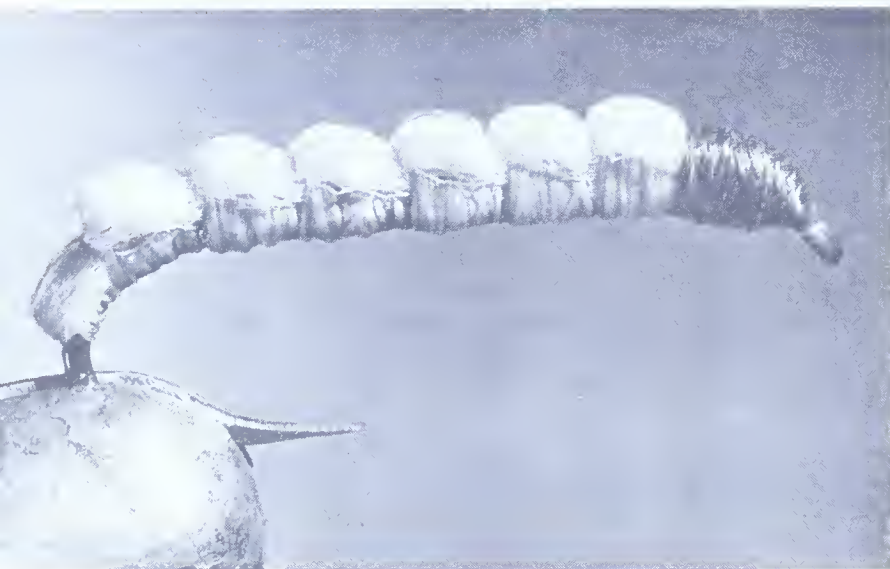
This story was related to me by the father of one of my deputies. While fishing in Pine Creek, he observed a young man running along the creek with his fishing rod. He asked him what he was doing, and the young man said, "**Trolling!**" He wished him luck and went on his way. I guess one can learn something new every day!

James H. Lauer
Waterways Patrolman
Lycoming County

NEVER GIVE UP!

Last year in trout season, I had the pleasure of checking the license of one fine *young* gentleman, Mr. Albert "Breeze" Klingensmith of Callensburg, Pa. I was informed at that time, that he had never had his license checked before in all of the time he had been fishing. Well, a few days before the opening of the 1974 trout season, "Breeze" had a birthday. He is now 95 years young; went fishing again this year, and he caught his limit on opening day. I found out why I didn't see him along any of the Clarion County streams that day; his buddies had taken him fishing in Elk County. However, he will be fishing in Clarion, and I hope to meet him along one of the streams again. He retired at age 78, and still gets up at 6:00 a.m., unless he's going fishing or hunting. By the way, he also got his buck on the opening day of the season last year. I hope to meet him along the streams for many years to come.

Robert J. Cortez
Waterways Patrolman
Clarion County



Ben Hoffman's green "Inch Worm"

A new twist on an old worm

by Ben Hoffman

photos: Francis Smith

Some years ago, Independence Day found me stumbling my way down Stoney Creek through the Pennsylvania Game Lands about a dozen miles upstream from its confluence with the Susquehanna River at the borough of Dauphin, just 10 miles north of the State Capitol at Harrisburg. I was trying to decide which fly to offer the trout next since I had tried quite a few with no luck at all.

I saw many green "inch worms" dropping from the trees, but I didn't see any trout coming up to take them. The worms hung only long enough until their web-like line would break, and down they went. I tried a clipped deer hair, which floated well, but produced nothing. Suddenly, my line caught a semi-submerged branch and pulled my green worm under . . . then I found that I should have been fishing *under the surface* instead of *below*. I put on a green chenille inch worm, which I had never really given a fair try, and soon caught and released many nice trout — I don't kill any unless they're injured.

The green inch worm is one of the terrestrial insects

that you'll encounter on streams from mid-June through late July. It may be known locally by a number of common names: "Oak Leaf Roller," "Oak Leaf Tier," or just "Inch Worm." It is probably of either the genus *Archips*, or perhaps *Crosea*. The combined species of these two genera are many, but not really important in the tying of the imitation.

The first time you might see this minute caterpillar is usually in June while on your favorite trout streams. They hang on a web-like filament from the low branches of trees and drop to the ground. The angler's interest in them is aroused when they drop not to the ground, but into the stream. The fortunate ones that make it to the ground will pupate there, develop into their adult form, a moth, then fly into the surrounding foliage and lay their eggs. Somehow, as happens throughout Nature's scheme of things, the eggs will survive the cold of winter, hatching into their larval form in early spring. The young survive by eating the foliage, reaching the "inch worm," caterpillar stage, by June or July — and the cycle starts all over again. The moth perishes after laying the eggs. It is those unfortunate individuals which fall into the water, the tiny green caterpillars, that we try to imitate.

That same evening, I went home to the fly bench and tied some deer tail, overlaid in the same manner as the polypropylene yarn shown and described in the photos on the opposite page. It was very natural looking, and worked well, but it sinks a bit faster than the polypropylene. Polypropylene yarn's specific gravity would indicate that it should float, but tied in this fashion, it will not float for any great length of time. When the worms are dropping, if you have along inch worms fashioned from both materials, you can select what fits the occasion best.

The GREATER OAK LEAF ROLLER (*Archips Semiferanus*) predominates in Stoney Creek, which, except during Agnes, flows *past* my home (at that time it was flowing *through*), so I captured a specimen and set about to imitate it. Although there are about 18 additional species in the genus *Archips*, all are basically close to the same size and color.

The color and size may vary with location, but you can find a natural in your area and match the color by blending common household RIT dyes. The deer hair version described should be tied in the same fashion as the polypropylene, using about 15 to 25 strands of long soft deer tail. Both deer hair and polypropylene (which has become a great new material for the fly tier) take the dye well.

I have found that the best way to fish the inch worm is on the terminal end of a 4X tippet. Cast downstream, in a quartering direction, and allow it to drift in a dead drift direction, in the same fashion as a wet fly. You might develop a technique of your own which works well — perhaps better. A split shot might be necessary if you are fishing fast, deep water. A sinking tip fly line works really well for me, but a fast sinking line seems to pull the worm down too fast at the start of my cast.

Although I have tried several other versions of the *Semiferanus*, I still think that this design does the best job. The overlaying method shown in the photos is adaptable to many other patterns using the polypropylene.



TOP LEFT: Clamp a #10 or #12 3-XL hook, with turned down eye (Mustad #9672), in your vise and bind 4/0 golden yellow thread close behind the eye of the hook. Select an 8-inch piece of 100% Polypropylene yarn (I've found a light green shade best because it will darken when wet) and tip it in very close to the eye.

TOP RIGHT: Continue to bind this yarn to the hook shank, with a very "close together" wrapping, to the middle of the hook bend. The close wrapping when binding the yarn is important to the under body color when finishing the fly.

CENTER LEFT: Take the golden yellow tying thread forward again about 3/16 of an inch. Begin the body segments at this point by bringing the green polypro yarn forward and wrap the tying thread over it by going from front to rear, about 4 or 5 wraps.

CENTER RIGHT: Fold the green yarn back toward the bend of the hook again and wrap over it, toward the rear, to

a point where you cover your last wrap of tying thread. This again is important to cover the tying thread or you will not make a good segment. Again, move your tying thread toward the eye of the hook, about 3/16 of an inch.

BOTTOM LEFT: Fold the green polypro forward, and wrap front to rear again, about 4 or 5 wraps, being sure to keep tension on the green yarn — enough to keep it from "puffing" too much.

BOTTOM RIGHT: By continuing this process to the point where you tied in your polypro yarn, you will have about 7 or 8 body segments. Clip the polypro off very close to the hook shank and wrap a small golden yellow head. Whip finish, or half hitch, to finish, and clip off tying thread. To finish your green inch worm, wrap in a light tan or black thread (nymph thread works well) and completely cover the yellow head. Lacquer the head and you will have a natural looking *Semiferanus* as shown on page 26.

*Safe Boating is an attainable goal,
but it's up to each individual boater to
do his share. The best way to do this is by
enrolling in a boating safety class.*

"This is the Captain Speaking"

by Capt. C.E. Leising USCG (Ret)
Director
Bureau of Waterways

We all know that *accident-free* boating — something that, as I write this, not even the master of the Q. E. II seems able to achieve — takes constant attention to safe practices, both in operating the machinery and navigating the vessel. It is not a matter to which we can turn our attention one week of the year. The greatest value of National Safe Boating Week is the opportunity it offers to muster the talent and resources of the news media to remind all who go aboard boats are still, in spite of all our technological advances, entering an environment that is just as unfriendly to an overboard sailor as it was when Noah sailed his Ark. Men have not yet returned to the amphibious creatures we are told we once were. Hopefully, however, we have learned something as to how to co-exist when we are unexpectedly dunked into unfriendly waters — or better yet, how to avoid the dunking. Certainly, there was never before so much good material available to so many at such low cost as there is today.

The hard part of the program is to convince everyone who boards a boat that unexpected events can suddenly turn an enjoyable family outing into a tragedy. This happened often enough last year in Pennsylvania waters to result in 34 deaths — 13 less than the year before (not counting AGNES casualties) but still too many and every one avoidable. Personal injury, some serious, and property damage ruined the day for many others. Rarely is the problem with the design — almost always it is "personnel defect." Chances are about 3 to 1 that this

will prove to be the case when the Q. E. II case is investigated and even with so large a ship, the fate of the over 1600 passengers might well have been less fortunate if the weather had not been so ideal for their transfer. In most cases, IGNORANCE, CARELESSNESS and LACK OF COMMON SENSE usually combine to cause the trouble. Since things "make more sense" to us when we understand "why" and we are thus more inclined to be careful, all of these trouble-makers are very closely related and EDUCATION is the answer to them all!

The 3-lesson, 6-hour course offered free by the Pennsylvania Fish Commission in every County has been converted to an audio-visual program on tape which the instructors have found very effective and well-received. Unfortunately there was a marked drop-off in interest by the public — at least judging from class attendance. Part of this might be attributed to the uncertain fuel future but there may also be a complacency developing that the possibility of operator licensing was only a bad rumor that had been laid to rest permanently. Hopefully, this is so but unless the Congress can see some hard statistical proof that the States have been able to make some real progress in the *education* of boat operators — and soon — there will be renewed pressure to force the other alternative, the last resort — *licensing*. This would be most unfortunate for reasons I've written and spoken about many times: mainly, it would cost a lot of money and still not produce the desired results with nearly the certainty that education can do for less. The right *attitude*, so important in safety on the water, can be developed in classroom discussion of real situations but not by passing any kind of a T-F or multiple-choice test. As for a practical test on the water, it'd be totally out of the question.

The statistical proof the Congress wants to see can never be gathered until all organizations interested and involved in boating education: the C. G. Auxiliary, the U. S. Power Squadron, the American Red Cross, the various States, etc., *coordinate* their efforts. If the same elementary but comprehensive course, limited to acquainting the class with basic fundamentals necessary to enjoy their boats in a safe way long enough to acquire some skill and expertise in the finer points of boatsmanship were taught by all of these organizations and the States were charged with overall responsibility for coordinated scheduling of the classes so as to reach all areas, furnishing the course material, including a Completion Certificate, and keeping the statistics, it would soon become clear whether any progress was being made or not. If not, the necessary corrective action would probably be obvious. As of now, no one really knows whether the problem is being solved and we stand a very grave risk of drifting into the inevitable: a requirement for Operator Licensing.

The National Safe Boating Committee could best observe NSBW this year by taking some positive steps in the way of recommending to the Commandant of the U. S. Coast Guard that his Service assume the necessary leadership to get all hands pulling together on this important issue. It can't be done unless the CG takes charge and asks these groups to address themselves to the task of moving in this direction as soon as possible.

CO-OP NEWS

by Bill Porter

FROM FULTON COUNTY—

The Fulton County Sportsmen's League gets the attention this month. The only cooperative nursery project in the county at the moment, the Fulton sportsmen have shown a continuous record of growth in the size of their project and the membership of their organization — both attributed to their interest in the raising of trout for public fishing.

Bill Mellott, club president, met us at the nursery site and gave a bit of history on the project's background. Approved by the Pennsylvania Fish Commission, construction began in the summer of 1970. Interest picked up and the original raceway was doubled in size during the 1971 working year. At this point two 6' x 50' cement block raceways were raising cooperative nursery trout for Fulton County waters.

Since that time another 100' of raceway, on a parallel pattern, have been added to the original construction. A rather complex system of intake channels, cleanouts, and diversion ditches have resulted so that all sections of the raceways can be supplied with water as needed. The end product of the construction has the complex looking a bit like a "figure-of-eight" with drainage into the Esther Run.

As Bill Mellott put it, "No project of this size runs by itself." The growth of the club has proven the interest and, of course, some individuals have been prime movers over the several years of the project. Reed Lynch, chairman of the Fish Committee, is a good coordinator and worker, and with him are other stalwarts such as Don McQuade, Merriel Seville, and Carl Lynch, to name only a few of the concerned workers.

The club is fortunate in having a regular feeder on a paid basis. Williard Lynch is the feeder and looks upon the nursery as more than a job. His concern and care of the trout have resulted in good growth and attention to the slightest problem that seems to be developing.

At the moment the Fulton nursery is raising about 12,000 trout with about 9,000 of these from the Fish Commission



Above: View of diversion channels and drainouts. Below: Photo shows details of construction and series of screens. This raceway can be extended if necessary.



for public stocking. About 3,000 brook trout were purchased by the club to complement the brown trout and rainbows supplied by the Commission.

Stocking is done in the Cove Creek, Tonoloway Creek, Licking Creek, and others. These are all open waters with some attempt to relate quotas to the size of the stream and location of the general population concentrations in the county.

A new area will be available for the first time during the 1974 season with a children's and handicapped persons' section immediately below the nursery on Esther Run. This portion of the stream, at the appropriate distance below the nursery, has been approved for this activity and will be stocked regularly by the Fulton County Sportsmen's League. This section of the stream, as well as some of the streams mentioned above, have had some stream improvement projects completed by the club with more on the planning boards.

And, while speaking of future projects, screening is one area being considered. At the moment, only certain portions of the raceways are covered and, according to President Mellott, additional screening is to be made this summer.

In spite of the lack of complete screening, predator problems have been minimal with no major losses. Some fish were "lost", as a result of high water, which screens might have contained. However, the club did not consider these fish as really "lost", since the fish actually "escaped" into Esther Run earlier this year and helped populate the new special children's area.

There are no apparent financial problems. Club growth from 60 to several hundred members lets dues and special fund drives handle the nursery with limited trouble. In addition, three "bubble gum" machines turn out a steady profit as visitors to the site buy handfuls of pellets to feed the trout.

Joe Houck, Waterways Patrolman for Fulton County, showed obvious pride in the Fulton County Sportsmen's League's Cooperative Nursery, as he accompanied us on our tour. And well he might; the club has a good thing going. It has grown tremendously in its short history and has made a positive contribution to the fishing and general outdoor recreation of Fulton County. The future of the project looks as good and firm as the present is obvious.

FISH TALES



BARNEY NYPOWER, of Philadelphia, caught this huge 47-inch, 28-pound musky from Wayne County's Belmont Lake last October. He received a Senior Citation.



Angler OLIN WILLIAMS, SR., of Center Valley, holds the 25-3/4-inch, 5-1/2-lb. chain pickerel taken from the Lehigh River in January.



DOUGLAS DEPPEN, 12, of Halifax holds the 21-inch, 3-3/4-pound channel catfish taken from Powells Creek in Dauphin County early in July.



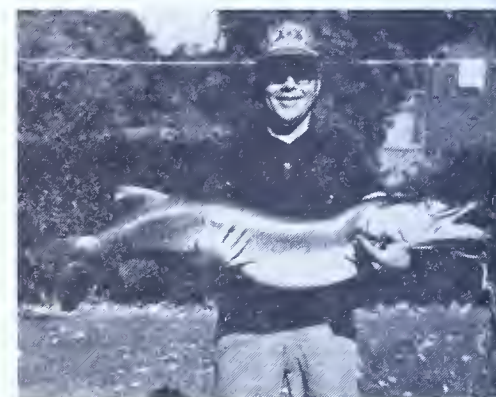
Young MARK BEATTY, 9, of Aliquippa, caught this beauty — a 36-1/2-inch, 14-1/8-pound muskellunge from Pymatuning Lake in May '73.



Mike Myers holds the 29-1/2-inch brown trout caught by his father, JOE MYERS, of Tidioute, in the Allegheny River, Warren Co., last September.



This 45-inch, 31-pound musky was caught during March by FRANK DECKER, of Lopez, from Bradford County's Susquehanna River for a Senior Citation.



RICHARD PUERZER, of Harrisburg, landed his prize — a 49-inch, 33-pound musky from the Susquehanna River, Cumberland County, last October.



TAMMY ERVIN, 13, of Nazareth, caught two largemouth bass — a 22-inch, 7-1/2-pound and a 20-inch, 4-1/2-pound — from Promised Land Lake, Pike County.



DAVID GINTOFF, of Old Forge, holds a 14-inch, 1-1/2-pound yellow perch taken on live bait at Lake Wallenpaupack last January.



Angler EMERY VAN HORN, JR., of Kersey, was fishing Allegheny Reservoir in February when he caught this 30-inch 10-1/4-pound walleye on a perch eye.



FLORIAN FODOR, 14, of Whitehall, caught his nice 24-inch, 4-3/8-pound chain pickerel in February from the Lehigh River.



JAMES REITZ, of Warren, displays the 43-1/2-inch, 23-pound musky caught in Warren County's Kinzua Tail Race early in January.



Angler CHARLES PROPST, of Northumberland, holds the 21-inch, 4-3/8-pound smallmouth bass caught in the Susquehanna River in Northumberland County.



ROBERT CORRELL, of Lehigh, shows the 25-1/4-inch, 5-pound chain pickerel taken from Beltzville Dam, Carbon County, using minnows for bait.



BARRY DUNMIRE, 11, of Duncansville, proudly displays the 36-1/2-inch, 14-3/8-pound musky caught in Shawnee Lake, Bedford County.



Little RAYMOND CROSSLEY, 5, Renovo, caught this nice 15-1/2-inch, 2-1/8-lb. brook trout from the Alvin Bush Dam in Clinton County last February.



BECKY SWINTON, 8, of State College, caught this beauty — a 24-1/4-inch, 3-3/8-pound chain pickerel — from Stone Valley Lake, Huntingdon Co.

PENNSYLVANIA SAFE BOATING WEEK JUNE 30 - JULY 6, 1974

PROCLAMATION

As we enter the summer vacation period, increasing numbers of Pennsylvanians turn towards the lakes, rivers and streams in boats of all kinds to fish, cruise, water-ski and enjoy the natural beauty of our great Commonwealth.

With the opening this year of thousands of acres of water in new artificial impoundments, such as the 8,300-acre Raystown Lake in Huntingdon and Bedford Counties, more boaters than ever before will be using Pennsylvania waterways. For them and their families, boating will provide not only new pleasures but also new challenges. Wind and water conditions can change rapidly even on the most pleasant of summer days. High speed operation of powerful boats can create hazards. Treacherous currents and white water rapids on many streams and rivers can present sudden and unexpected challenges to the skill and ability of canoeists and operators of other small boats.

For the inexperienced boater — as well as for those persons who may have owned and operated small watercraft for many years — the need for safety education in the care, handling and operation of boats is ever-increasing. Every Pennsylvania boater, regardless of the size, type, or power source of his or her boat, should take advantage of pleasure boating courses offered by the Pennsylvania Fish Commission, American Red Cross, Power Squadrons, Coast Guard Auxiliary, Water Rescue Squads, and other organizations. Far too few do so. Far too few likewise are unaware of the lifesaving reasons behind our boating laws and regulations and the requirements to carry or wear approved Personal Flotation Devices and other safety equipment aboard watercraft plying Pennsylvania waters.

Therefore, I, Milton J. Shapp, Governor of the Commonwealth, do hereby proclaim the week beginning June 30, 1974 as SAFE BOATING WEEK in Pennsylvania. In doing so, I urge every boatman and fisherman to learn and to obey the law and regulations that are intended to ensure maximum and safe use of our waterways for all. Your courteous regard for the rights of others, your attention to leave our waterways as you found them by taking your litter with you, and your temperate use of your equipment will make boating more enjoyable for all. **Remember — SAFE BOATING IS NO ACCIDENT.**

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DOCUMENTS SECTION

An old enemy rears its ugly head again!



Today, the greatest enemy to the fisheries of the Commonwealth is pollution. We are spending more time in our efforts to sustain high water quality than on anything else within our operating framework.

In the past six months, the mining interests, responding to the energy crisis which surfaced in 1973, are requesting mining permits wherever coal exists at a rate unmatched since the 1940's. Encouraged by the backlash the oil shortage has created against those who have fought to preserve our resources and environment, and by the proliferation of anti-environmental statements which have emanated from persons in the federal government, these permits could well reverse over a decade of hard work toward the elimination of major mine drainage problems.

To the fishermen of Pennsylvania, and to the Commission itself, this threat represents the single most critical issue that challenges our ability to provide and manage adequate resources to meet future recreational demands. We review hundreds of mine drainage permit applications and I regret to tell you that although we recommend disapproval of approximately two-thirds of these, we are being overridden on at least 70% of those we protest. I predict that this is going to be more and more of a concern to our personnel in the future.

Particular watersheds, such as the Slippery Rock and Mahoning Creek Watersheds, where large investments in "Scarlift Projects" have been made, are again being mined at an unprecedented rate. The most we seem to be able to accomplish is to watch these operations with every possible means of surveillance because it is virtually impossible to guarantee against an occasional mine acid slug which is enough to render a stream aquatically valueless.

Ralph W. Abele,
Executive Director

Pennsylvania Angler

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FRONT COVER: George E. Dolnack, Jr., photographed son Chris and crappie catch from Chester-Octoraro Reservoir. Story appears on page 16.

BACK COVER: The harmless Northern Water Snake. Photo: Tom Fegely.

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James F. Yoder, Editor

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Fishing Outlook

by Stan Paulakovich

"It was a warm night, the sky was alive with brilliant stars . . . the solitude was wonderful. My son and I were fishing the Allegheny River, near the village of President, at a place called Panther Rocks. It was July 28th, 1959. I was using a casting outfit with thirty pound test line. We were anchored in one of the great eddies of the upper river and fishing was slow.

"My bait was a five-inch river chub; I could feel its gentle tugging as it moved slowly over the river bottom — then it stopped. I sensed, rather than felt, that something had picked it up. Cautiously it moved off and I gave slack. After a wait that seemed like an eternity, I picked up the pole and took up the slack line. I had something on — but what? Rearing back, I set the hook. Whatever I had on felt like a Sherman tank!

"Nothing I had ever tangled with behaved like this fish. It bulldogged around the pool with no regard for the restraining line. After a while my arms tired, and I

passed the rod to Bill, Jr. He fought the fish for a long time — then passed the rod back to me. After more than one hour of battling the fish, it came close to the boat and we finally got it to the net and into the boat.

"A catfish! And, man, *was it ugly!* In fact, it was the *ugliest, beautiful* fish I had ever seen! Now that we had it, what to do with it? We decided to take it home.

"We wrapped it up in some burlap we had in the trunk of the car and hauled it back to Acmetonia, near Pittsburgh. When we got it home, it was still alive. We put it into a pool in a small stream near the house and it swam about. A photographer from the Pittsburgh paper came up and took a picture of it, and within the next few days hundreds of people came to look at it. We decided to give it to the Carnegie Museum. They made a mold of it and cast a perfect reproduction."

This was the story Bill Yates told me back in 1961. Today, that replica is on display at the museum. A FLATHEAD CATFISH, 41 inches long, weighing 45 pounds, and with a girth of 28 inches, caught by William Yates of Indianola and his son William Jr. of Springdale.

Are these flathead catfish still in the river? Certainly! We still have fellows who fish strictly for the big cats in each of the eddies and deep pools of the river, from Schenley to Kinzua — they catch them, too! Big minnows, or any of the river sunfish, are the preferred baits. Ten- to twenty-pounders are the size the flatheads are running now. Besides the Allegheny, we get an occasional report of catches from the Ohio River — and from the Beaver River, in the Rochester area.

Channel catfish, next largest in size, are in just about every one of the watersheds across the state. Old "fork tail" will run up to about 15 pounds in our waters, although much heavier fish have been caught. Unlike the flatheads, channel cats will occasionally hit a slowly

The photo, right, of William Yates and his son, Bill, Jr., was taken back in 1959 when the catch was made

Flathead Catfish catches are on the increase in the Allegheny River and in some future issue of the Angler, we hope to present a feature which will greatly aid anglers in the correct identification of the major catfishes found in Pennsylvania waters.



moving artificial lure. Those who fish strictly for them, swear by shrimp as bait, but this can get pretty costly now. Other baits used are minnows, dead or alive, and gobs of nightcrawlers or garden worms. Put a good-sized wad of these on the hook.

The smaller channel cats, those up to 14 inches, seem to prefer the riffle areas of the larger streams. As they grow in size, they retreat to the deeper holes. The distinctive steely-blue color and the black spots disappear as the fish grow bigger. Except for the forked tail, it then looks like any other catfish.

Catfish don't have to be big to offer good sport. The bullhead catfish, represented in our state by the yellow bullhead, the brown bullhead, and the black bullhead rarely exceed 18 inches in length. Most of these that are caught will average 10 inches. Great for fishing — because they bite well — they're a good fish to start youngsters on.

Bullheads can be caught on just about any bait imaginable. They are nocturnal and night fishing for them is by far the best. Gobs of worms, corn, cheese, doughball and a wide variety of meats, will all catch them. Big hooks, size 6 or larger, are best for catfish. Get

the bait down to the bottom and just wait. The catfish rely on the barbels around the mouth, and their keen sense of smell, to locate their food. Many catfishermen prefer a bait that gives off an odor to catch their fish.

All catfish are fine eating. The flesh of the flatheads and the channel cats is snowy white, while in the bullheads it's a pearly grey. Catfish must be skinned before cooking, but this is a simple operation. Cut completely around the body of the fish, just behind the gill cover. Then with a pair of pliers, grasp the skin and pull it off the body. Beware of the sharp spines located in the first ray of the dorsal and pectoral fins; these can inflict a nasty cut if you mishandle the fish.

After you have the skin off, the body structure is similar to that of the basses. It's an easy matter to filet the meat away from the spine and the rib cage. After you have the filets, you can fry, broil, or boil them. Chunks of catfish, boiled lightly, then prepared in a casserole with a white or other type of cream sauce, are a taste-alike substitute for Lobster Thermidor! Next time you're out fishing and you catch some catfish, save them and cook them up. You will soon realize why *catfish farming*, for table use, is such a big deal down South!

Lake Erie Treasure Hunting

by Robert L. Steiner
Fish Culturist,
Walnut Creek Station



Much has been written about the recreational impact of the salmon fishing in Lake Erie in the last few years, but recently a new pastime has developed as a direct result of this fishery. This hobby is **Treasure Hunting!** The "*treasure*"? Fishing lures — of every conceivable size, shape, color, weight, and *value*.

My personal interest in treasure hunting is confined to walking the beaches after the "northeasters" and "northwesters" have blown themselves out and rummaging through the driftwood. In the last two years my efforts have been rewarded with no less than fifty fishing lures, besides unique pieces of driftwood, toys, and many other items.

Another aspect of treasure hunting is more of the type one would naturally think of. This involves diving with scuba gear or with just a snorkel and mask.

Dr. E.B. Buckalew of Girard has been diving since 1968 for sunken treasure in the lake off his cottage at the mouth of Godfrey Run. In the years since he started diving, he has accumulated some 500 to 600 lures. The "Doc," 65 years of age, does little or no actual fishing for

coho though he readily agrees that they are the reason the "treasure hunting" has picked up in the last few years.

He claims that the shale ledges of the lake bottom are the hot spots and especially fifty yards from shore (the distance of a good, long cast). However, logs, rocks, and other snags are also excellent lure producers.

Visibility is very good to twenty feet on calm days when the sun is shining. During the heat of the salmon run, on any given day, Dr. Buckalew does his treasure hunting. Best diving time is around noon, when the overhead sun aids visibility.

A surprising number of the lures found are *homemade*. This is probably by necessity, as the local fishermen who donate lures to the lake day in and day out just can't afford to keep buying them!

The next time you travel from "*down state*" to fish for coho, and find the weather unseasonably warm, get yourself a snorkel, read up on the regulations and try finding some lost "treasure." You never can tell, you just may go home with a smile knowing you bested the doc's record of **99 lures in one day!**



NEED SPECIFIC INFORMATION?

Check the directory on the inside of our back cover; bureau, division, and section titles are self-explanatory, and inquiries directed to these offices will be handled more expeditiously.

Many inquiries are directed to the editor's attention, resulting in a delay until it can be channeled to the department most qualified to supply the information.

"Letters to the editor," regarding the magazine, its content or distribution, are always welcomed. We especially invite our readers to share their fishing and boating experiences, both good and bad, with other readers.

Your district waterways patrolman is best qualified to handle matters of purely local concern. His name, address, and telephone number are listed in both your summaries of Fishing Regulations & Laws and Pleasure Boating Requirements.

WAIT 'TIL YOU HEAR THIS ONE!

Last June my friends and I went fishing for bass at the wonderful Beltzville Reservoir. I was always told about the great muskellunge fishing there, but never gave it a try. I just got finished putting an 11-inch largemouth on my stringer. I threw the stringer back in the water and secured it to a little bush. Everything seemed normal, so I walked away and tried to get some more of those largemouth. All of a sudden I heard commotion and splashing where my stringer was. I knew that bass I caught couldn't be making all that noise. I went over to see what was going on and to this day I still don't believe what I saw. There was a tiger musky, at least forty-some inches long, eating the bass on my stringer! He had the bass in his mouth — head first — with just his tail sticking out of the musky's mouth. When I got closer, he spit the bass back out and headed for deeper water. Now I do a lot of musky fishing at Beltzville, and I just wish I

could come across that big hungry fellow again, and hope that he will be on the other end of my stringer.

WAYNE T. LEWIS
Horsham

TIRED OF "BEING PUT DOWN!"

I would like to relate to you an incident that happened on Saturday, April 13, 1974. My husband, son, two friends and myself were camping along a stream in Driftwood, Cameron County, Pa. A group of men in pickup trucks were there, too. They came in around 3:00 a.m. Saturday morning and banged truck doors and used loud obscene language. We politely asked them to "keep it down" as we were trying to sleep. It did no good as it was quite evident that they had been drinking.

My girl friend and I fished under a bridge with my nine year old son on opening day. These so-called *sportsmen* (?) fished above and around us. They used and directed obscene remarks at us the whole time they were there. Earlier, my husband had asked them to please watch their language as there were women and children fishing. They ignored our pleas and kept right on doing it. As though their vulgarity weren't enough, they pitched empty beer cans into the creek before leaving!

I have been fishing for quite a few years and have never seen anything like this before. I got a license plate number and a mill number off of one of the trucks. I know who the man is that owns it but he is not the one who littered the creek. The fellow who did that was from out of state and I didn't get his number. He complained about the price he paid to fish in Pennsylvania but was quick to throw the cans in the water. I would gladly pay that amount to keep his kind out of our state.

I hope these gentlemen are proud of their behavior. Maybe if their licenses were revoked they might think twice about doing it again. I am one woman who is tired of men who think the sports of hunting and fishing belong exclusively to them. I'm not saying all men are like this but there are exceptions to every rule. It's time something be done about it. I pay for my licenses the same as they do and have a right to hunt or fish wherever I please. It's men such as these who give sportsmen a bad name. How would you like to be degraded in front of your child? I don't do such things nor do I expect to have to put up with people who do. I sincerely hope you will publish this letter as I'm sure other women have experienced the same thing. I'm tired of being put down because I happen to be a

woman and love the out-of-doors. Thank you for taking the time to read this. I have sent a copy of this letter to a local newspaper in the county in which one of the men lives. Maybe some of these men will read this and recognize themselves as the offenders.

A MOTHER and Sportswoman!
(name withheld at writer's request)

Not only will those men recognize themselves, Mom, but it will probably remind more than a few others to be a bit more considerate while fellow anglers are trying to enjoy their fishing! Although we couldn't have done a thing about their language, had our District Waterways Patrolman or one of his deputies been notified immediately, the throwing of one beer can would have cost those culprits more than the price of a few cases of the brew! Ed.

SOONER OR LATER . . .

I occasionally notice that some readers of the *Pennsylvania Angler* question whether or not it is proper to have boating articles in "our" magazine since it is supposed to be a fishing magazine and since many people (including myself) do not own a boat.

Ten years ago, no one, but no one, could get me in a boat for love nor money, and I am second to none in my love for fishing — and have been all of my life.

Then, about ten years ago, I let my brother (after many years of trying) finally persuade me to get into his boat, in the Niagara River in Buffalo, New York, where we were living at the time.

Six months later I bought a 14' boat and a second hand 15 horse motor (on the installment plan) and enjoyed my boat for fishing for about three years before I sold it. I still rent one now and then and I still like fishing from the bank and such.

My point is: **fishing and boats go together like a ball and bat!** In the majority of cases, **most fishermen either have fished, or will fish, from a boat!**

PAT CANCELLA
Ridgway

TWO OF A KIND—

A funny thing happened to me shortly after I received my May '74 copy of the *Angler*. My fishing buddies came up to me and said that my name was in the *Angler*, but that there was a mistake. I asked them what they were talking about, and they promptly produced a copy of the *Angler*. And, sure enough, in your *Fish Tales* section was a picture of a young angler from Washington, Pa., holding a 20 1/4" largemouth bass. His name is Robert Tarr.

That is also my name. Tarr isn't a very common name and I was very surprised to find someone else with the same name as me. I explained to my buddies that it was possible for someone to have the same name as myself and that it wasn't a mistake. I would like to congratulate the other Robert Tarr on his fine catch, and thank him for adding a bit of spice to my life as I am sure it did to his too. If I am ever as fortunate as he was on his catch, I will be sure to send a picture to the *Angler* so we both may share the excitement of seeing our names in Pennsylvania's fine fishing magazine.

ROBERT TARR
Philadelphia

SHARE YOUR OUTDOOR TIPS!

If you've got some outdoor tip, whether it involves catching fish, repairing tackle—whatever, send it along and share it with others! That's the purpose of our "Leaky Boots" column. Let's hear them!

PULLING HIS LEG?

I have been trolling in Lake Erie for about 3½ years trying to catch a sturgeon. I have tried many, many ways to catch them. The guys I work with give me different ideas and types of lures to use. I know these guys catch them a lot because whenever I talk about fishing at lunch time, they tell me about all the sturgeon they catch. I have used every lure and idea that my buddies have suggested so far and I have not even got one nibble! I don't like to fish all alone but the guys won't fish with me for sturgeon until I get one all by myself. They say that's a rule of the "Super Sturgeon Club." I asked a fish warden the other day when he was checking my license about catching sturgeon. He said the guys were pulling my leg and that I shouldn't believe them. Well, I don't really think the guys would tell me all the wrong lures to use. But, just to be sure, could you please tell me what lures I should use so that I can see if they are the same kind the guys told me to use?

MILO WASILIEWSKI
Erie

Catching a sturgeon in Lake Erie is something like ordering Kielbasa in a Chinese restaurant, Milo. They've got you by both legs! Although you will find the sturgeon listed as legal prey in Lake Erie in your summary, they have since been put on the "ENDANGERED SPECIES" list. Until they make a comeback, why not try the coho, chinook, walleye, muskies, and bass? Ed.

LITTERING IS A CURSE!

Each of us can help clean up our recreational environment by picking up not only our own trash, but that left behind by others.

GOOD NEWS

In the past few weeks we have had several orders for Champion outboard motor parts due to information in your former question and answer column. This is a great help to the people that have old motors made by Champion, and have not been able to find parts. So often people who love to get out on the water can't find parts for old motors, and can't really afford a new motor.

I am writing to bring your information up to date. We have moved, just outside of Minneapolis, to the address below. Champion made Majestic, B. F. Goodrich, "Sea Flyer", Monarch, and Voyager motors. The last year of Champion Company was 1958. We are the parts factory, and still make some parts for years 1946-1958, and do have some parts back to 1935.

SWANSON OUTBOARD INC.
Route 2, Box 15D
Rogers, Minnesota 55374

SEEKS FIGURES

We would like to know what the Fish Commission put in Somerset Lake and Donegal Lake in Somerset County, how big and what species of fish, and how many. Also, do you stock Bridgeport Dam, Mt. Pleasant, in Westmoreland County? I think that you people do one heckuva job in keeping the public supplied with some darn good fishing in our streams and lakes. We get a lot of northern pike, but they are only 16 to 23 inches long. Why isn't the size lowered? Some people will not cut the leader but they try to take out the hook and they hurt the fish and it will die later.

Would you please tell us how to keep salmon eggs, from a salmon caught in Lake Erie, for use for bait in trout season. I also think that the 12- to 16-year olds should buy a license to fish. Thank you very much.

ANDY

P.S. I like the *Angler's Notebook*, keep it up; also *Taking A Closer Look*, and *Notes from the Streams*.

The following fishes (sizes and numbers) were stocked in Somerset Lake and Donegal Lake during fiscal year '72-'73 and are fairly typical of many past stockings:

Somerset Lake		
Musky	Fingerlings	500
Walleye	Adults	200

Donegal Lake		
Musky	Fingerlings	500
Northern pike	Adult	320
Walleye	Fry	500,000
Walleye	Adult	200
Redear sunfish	Fingerlings	9,000

The reason "Andy" and friends are catching northern pike which are only 16 to 23 inches in length is that:

- (a) They're lousy fishermen.
- (b) Northern pike are relatively easy to catch, so much so in many waters, that the legal size fish (24 inches and larger) are cropped off, thus leaving many smaller fish.

- (c) I don't know.

Choice (b) is probably most nearly correct.

After asking most of the guys here, it seems that salmon eggs should be placed in a vegetable oil of some sort and stored in a cool place. If this is not correct, choice (c) above is probably most nearly correct.

CLARK N. SHIFFER
Aquatic Biologist

IF YOU'RE MOVING—

Your *Angler* will be delayed if you fail to advise us in advance. Send us both your old and your new addresses—include both ZIPCODES.

WHEN ORDERING LITERATURE—

The increased costs in both postal rates and paper products have imposed a tremendous burden upon our budget. Therefore, we must request that readers include 25¢, to cover postage and handling, when sending for literature. In remitting, you may use postage stamps.

Additional copies of the *Angler* may be ordered at the single copy price, plus 25¢, provided your order reaches us within the month of publication. **WE DO NOT MAINTAIN A SUPPLY OF BACK ISSUES.**

Taking A Closer Look

by Tom Fegely

During the fall to spring “banquet season,” I’m frequently invited to present my “**Pennsylvania Out-of-Doors**” slide talk to those in attendance. While the ham and apple pie are settling in everyone’s craw, a parade of birds, mammals, wildflowers, fish, and other wildlife cross the screen and stimulate questions which, afterwards, I attempt to answer. No single topic seems to bring a bigger response than **snakes**.

Even though fearful and often misinformed, people tend to have a certain fascination for snakes. Down through the ages various superstitions and fallacies have accumulated, casting a mystic shadow on these legless reptiles. Stories of “hoop snakes”, baby snakes that hide in their mother’s mouth for protection, poisonous snakes whose venom kills trees — even one that sucks milk from cows — are repeated and believed — especially by youngsters. Although much of this misinformation stems from poisonous snakes, most people have never actually seen one but may think they have. For example, the water snake is often referred to as a “water moccasin,” and the beneficial milk snake is often needlessly slaughtered when mistaken for a copperhead. Every true sportsman should take it upon himself to learn more about Pennsylvania’s snakes as a step in putting them in their proper psychological and ecological perspective.

Twenty-two species of snakes have been recorded within our state’s borders. Of the nineteen harmless (non-poisonous) kinds, about 14 are common enough to be worthy of a “Closer Look”.

Pennsylvania anglers most often come across those species that live near water and feed upon toads, frogs, fish and salamanders. The NORTHERN WATER SNAKE (*Natrix sipedon*) is most frequently seen but is mistaken for the timid QUEEN SNAKE (*Natrix septemvittata*) in some of the non-mountainous counties. The QUEEN SNAKE’s unusual diet consists primarily of crayfish while the WATER SNAKE feeds on a variety of aquatic life.

GARTER SNAKES, too, frequent wet habitats. The EASTERN GARTER SNAKE (*Thamnophis sirtalis*) is Pennsylvania’s most common reptile and is recognized by practically everyone who crosses paths with it. In northwestern counties it may be confused with the smaller SHORT-HEADED GARTER SNAKE (*Thamnophis brachystoma*) or the brightly patterned RIBBON SNAKE (*Thamnophis sauritus*) which has been recorded in over half of Pennsylvania’s counties. Because all three “garters” will take to water to hunt for food, or seek escape, they may at times be confused with water snakes.

The beneficial Milk Snake, below, though quite harmless, is often mistakenly identified as a “copperhead” and killed without reason.



On the other hand, the NORTHERN BROWN SNAKE or DEKAY’S SNAKE (*Storeria dekayi*) is frequently mistaken for a GARTER SNAKE, even though it lacks the distinguishing trio of longitudinal stripes. Found in vacant lots, open fields and backyard rock gardens, it feeds on slugs, snails, earthworms, and insects.

Found in similar habitats, the readily-identifiable NORTHERN RINGNECK SNAKE (*Diadophis punctatus*) and the NORTHERN RED-BELLIED SNAKE (*Storeria occipitomaculata*) are both black with field marks as described in their names. The RINGNECK SNAKE is found statewide while the RED-BELLIED is absent from the entire southeast portion of Pennsylvania.

The EASTERN HOGNOSE SNAKE (*Heterodon platyrhinos*) is sometimes mistaken for a “rattler” due to its coloration and bluffing act. When approached, it hisses, strikes, spreads its neck and tries to discourage anyone coming near. Should this portion of the “show” be unconvincing, the hognose will roll over on its back and “play ‘possum”! When turned right side up, it once again rolls over and feigns death. Found along sandy beaches and mountain ridges in 27 counties, hognose snakes feed on frogs and toads.

Two green-colored snakes live in Pennsylvania, the more common one being the gentle SMOOTH GREEN SNAKE (*Opheodrys vernalis*) or “grass snake” which is easily captured and successfully kept as a pet. Like the longer and lesser-known ROUGH GREEN SNAKE (*Opheodrys aestivus*), it feeds mainly on insects.



Above left: The main distinguishing feature of the **Eastern Garter Snake** is its three longitudinal yellow stripes. The **Black Rat Snake**, above right, often climbs trees in search of prey. Below left: The secretive and seldom found **Northern Ringneck Snake** is easily recognized by its yellow neck ring. The harmless **Northern Water Snake**, below right, is not a "water moccasin"!



caterpillars and spiders. The rough species is usually found lurking in shrubs, trees or vines and is recorded only in the southernmost counties. The smooth "grass snake" dwells in 50 counties where it patrols fields for crickets and grasshoppers.

Pennsylvania's longest snake is the **BLACK RAT SNAKE** (*Elapheobsoleta*) which can grow to eight feet or more, although it is usually much shorter. Its farmland habitat provides it with a diet of rabbits, birds, frogs, other snakes and rodents. Where woods are present, the black rat snake will climb trees in search of squirrels, chipmunks, birds and bird eggs.

The **NORTHERN BLACK RACER** (*Coluber constrictor*) is the state's second largest snake. Despite its scientific name, the racer does not truly *constrict* its prey, but, instead, pins it to the ground as it is being ingested. Though often confused, the **BLACK RACER**'S smooth scale pattern and dark gray belly distinguishes it from the **BLACK RAT SNAKE** and its blotched belly and faintly barred back.

The **EASTERN MILK SNAKE** (*Lampropeltis dolia*) feeds upon rodents and other snakes—**not on cow's milk!** The false notion that this beautifully-patterned reptile attaches to a cow's udder and drinks milk has been exaggerated to the point where its name even adds credence to the misbelief.

Despite a vast difference in shape and coloration, this

beneficial snake is often mistaken for a "copperhead" and consequently killed. The outstanding differences between the two are the milk snake's "polished" appearance (and checkered belly) as compared to that of the rough-scaled copperhead.

It is disturbing to hear a youngster (or oldster) brag of having stoned or clubbed a snake to death because it happened to be in his path. True, at times removal of poisonous species is necessary. But more often than not, "poisonous" snakes turn out to be misidentified harmless ones.

Fishermen, more than any other type of sportsmen, are likely to cross paths with snakes of several types. If every angler took it upon himself to learn a bit more about Pennsylvania's snake-life — and pass the knowledge along to an impressionable youngster — our beneficial, harmless snakes might someday be given the respect and protection they deserve.

(Editor's note: The author, Tom Fegely, an environmental education specialist in the East Penn School District, is not a staff member of the Pennsylvania Fish Commission. Therefore his slide talk, "Pennsylvania Out-of-Doors", is not available from the Commission, but from the author who may be contacted at his home address: Thomas D. Fegely, 838 W. Station Ave., Coopersburg, Pa. 18036.



"Lawrence and I passed this fisherman doing battle with a hard fighting walleye on our Allegheny River float trip."

The sounds of Franklin boro slowly faded away. They were replaced by the gurgle of water as it bubbled through one of the Allegheny River riffles, the click of spin reel bails opening and closing, and the plop of our minnow-spinner baits as they chunked into the water. My partner and I were embarking on a two-day float trip into some of the most scenic, remote and productive fishing in all of Pennsylvania.

The month was August and hot. The humidity was high. The sun could only peek through the cloudy, threatening sky on rare occasions.

But the weather had little meaning to Lawrence and me. We did welcome the whispering sounds of the river, the song bird chorus that came from the tree-lined riverbank, and the opportunity to be outdoors together.

It didn't take long for the fish to cooperate. A small but cool feeder spring was flowing in from the west side of the river. We made sure our little river boat went in close for our float past. On my first cast into the feeder stream hole I was welcomed with a solid strike. My little ultralight rod bent double. The tip throbbed, bounced and danced as the fish on the other end went through its antics, trying to shake the hook free.

It turned out to be a savage northern pike. I slid him into the boat just as the little treble hook fell from his mouth, and amidst his flopping, ascertained that he went 23 inches, an inch under the legal limit!

We figured on returning most of our fish anyway, so I slipped this one over the side. He immediately shot for the depths of the river.

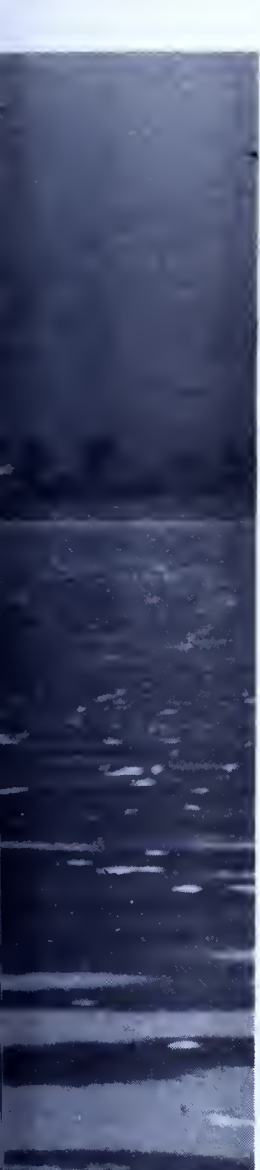
"It's a start," I commented to Lawrence. "Now let's really bear down on 'em and keep a few to fillet for tonight's supper. We can throw the rest back, then tomorrow morning we can catch a few more fresh ones for the breakfast skillet."

I was fishing with my compatriot of many outdoor treks past, Lawrence Cignetti. Lawrence is an ardent outdoorsman of 70 plus years, but he doesn't look it or show it. He still bounds across grouse covers and woodcock tangles with an exuberance that puts most 20-year olds to shame. And for the first six weeks of trout season, he is up long before the sun, almost every day.

Lawrence was the next one to latch onto a fish. It was a river bass that pounced on his minnow. It came out of the water immediately, and I kidded, "It'll never make the 9-inch limit!"

The bass burrowed for the bottom, rose back to surface, shaking his head violently, made one last valiant jump, and Lawrence hoisted him aboard. He has the butt end of his spin rod marked off with measurements of 6, 9, and 15 inches. The smallmouth appeared to be about two inches over the 9-inch mark, fat and healthy; there was no argument about adding this one to the stringer.

We were moving faster now, at the head of a riffle. We



If you like peace and quiet while enjoying beautiful scenery plus a variety of good fishing, then you'll want to try —

An Allegheny River Float Trip

by Nick Sisley

both picked up a paddle, straightened our course, and with an easy stroke, set our speed just a little faster than the current. As we bobbed along through the waves, only an occasional paddle stroke was necessary to keep us moving straight. The swiftest water behind us, I picked up my ultralight, opened the bail, and directed a cast into the slack water to the west side of the eddy.

Wham! It was a walleye this time. He bulldogged and thrashed for long seconds before I hefted him into the boat. He appeared to be about 14 inches long, and was returned to be caught another day.

Our two-day float was over the stretch between Franklin and Kennerdell, Pa., in southern Venango County. We had put into the Allegheny just below the U. S. 322 bridge at the town of Franklin. Here, the Pennsylvania Fish Commission has constructed an access area where fishermen and boaters can park their cars, and easily launch their craft. Except for a lone railroad bridge, nothing crosses the Allegheny all the way to Kennerdell. This stretch is estimated to be about 20 miles in length, and if you look on a road map, you'll note that it's only a stone's throw from the megalopolis of Pittsburgh and suburbs.

From Kennerdell on south there is another remote and reportedly excellent fishing stretch, all the way to Emlenton. I've never fished these waters, but intend to in the near future. It, too, appears to be approximately 20 miles in length, and as with the stretch above Kennerdell, no automobile bridges or roads cross or traverse this

section. It's tough to find that type of remote fishing water so close to urban civilization in this day and age.

Both these sections offer ideal distances for two-day floats. Making 20 miles a day by boat or canoe is fine if you plan no fishing. But I like to float rivers because it puts me in prime fishing situations. I want to float my way along from one top notch fishing spot to another, and let the current carry me. I don't want to be fighting any time clock. I want to make my time count — **fishing!!**

Figure that a mile an hour on a river float is plenty fast enough if you are interested in fishing. If you want to pass up good looking spots; not float back through productive eddies for a second time; not get out of the boat at likely-looking riffles and cast from shore, or while wet wading — then you can make more mileage. Suffice to say, 8 or 9 miles a day are plenty for me!

Lawrence's rod started throbbing next. "You'll have to throw that one back," I chided again, kidding my fishing companion. He didn't pay any attention to me, just kept constant pressure on the fish and ended up landing him. Measured on Lawrence's crude spin rod measuring rule, he came out to 9 1/2 inches.

Lawrence unhooked him and grabbed hold of the stringer, and I chided him again, "Aren't you going to throw that tiny bass back?"

"Nope. I know how good his fillets are going to taste fresh from the pan," Lawrence responded with a grin. I had to agree with him.



"We beached the boat at an exceptionally 'fishy' looking riffle and 'wet-waded' the most likely looking spots."

There are plenty of Allegheny smallmouth that go right around this 9-inch minimum length. I'd make a guess that 80% or more of the smallmouth that strike in the river range between 7- and 11-inches.

But that shouldn't be on the discredit side. I wasn't the original one to say that smallmouth are, pound for pound, the scrappiest freshwater fish that swim; others have said it before me. I am only in full agreement with them because I get a great deal of pleasure even from the little 7-inches. Most times they have as much fight as a 10- or 11-incher, and generally favor aerobatics even more.

One of the secrets to getting a great deal of enjoyment out of these relatively small fish is the rod and reel outfit that you tackle them with. Use a flimsy, short, ultralight rod and small spin reel with 3 or 4 pound mono.

Though there are flyrodders who are devotees of smallmouth fishing, most river bass anglers use other fishing methods. At times hair, feather and fur imitations of nymphs, crickets, frogs, tadpoles, minnows, etc., are very productive smallmouth strike producers.

Floating plugs that wiggle under the surface on retrieve are also excellent. Some purists stick with spinners from one end of the season to the other.

Bait fishermen probably do as well on smallmouth as anyone. Hellgrammites, the larva stage of the Dobson fly, are a prime producer throughout the summer.

Usually by early July, crayfish start shedding their hard shells. When they do, they are prime targets of all river bass. Properly fished, "soft shells" on the Allegheny (and many other rivers) are tough to beat.

Lawrence and I used minnows, threaded minnows that is, in conjunction with a minnow rig and a small spinner. It's not a new way to fish, but it is one that not too many people know about, and one that I see used infrequently.

Take a short length of monofilament, perhaps 12 inches long, and tie a small swivel on one end. Thread on a Colorado or Indiana spinner. Small sizes work best for us. We vary between gold, silver, brass, and "hammered". Next, thread on a small bead. We then tie a loop of about 1-inch diameter on the other end of this short monofilament section.

The idea now is to "thread" the minnow with a needle, hook the "minnow rig" loop on the end of the needle, and pull it entirely through the bait. Next thread the eye of a size 12, 14, or 16 treble hook with the monofilament loop you have passed through the minnow. Pass the loop around the treble hook and pull it up snug. Now pull the loop back up into the body of the minnow and tuck the treble hook up inside, too.

When bass, or most any other fish species strike a moving minnow, they hit from the side or the rear. Seldom from the front. This is why it is so difficult to hook a bass with a moving minnow hooked through the



Lawrence Cignetti, the author's 72-year young fishing partner nets smallmouth and admires before releasing.

lips. But, by using a "spinner-minnow rig," treble hook toward the tail end of the fish, you don't miss many strikes.

The little bead between the loop knot and the spinner is what the spinner spins on as you turn your reel handle, cranking the lure through the current back toward you. The loop must be the right size so that the loop knot protrudes a short distance in front of the minnow's mouth. The bead rides on this loop knot, the spinner above the bead.

The spinner-minnow rig is great for many fish species. With it you are both bait fishing and attractor lure fishing at the same time. There is always action involved, and never any need to put your mind in neutral as you sometimes must do when bait fishing from the bank. The turning blade of the spinner attracts the fish for a "look-see." The minnow provides the "real thing" for the fish to decide to strike.

"This sure is a slow stretch," I commented. "What do you say we crank up the outboard and head for the next riffle? I always like the moving water for smallmouth and walleyes. These dead water stretches have never been too productive in the past," I went on.

"Yeah, we haven't had a bite in quite sometime anyway," Lawrence retorted, as he cranked his spin reel handle faster to hurry his lure out of the water so we could be on our way.

I coaxed the little engine into life with a couple of pulls, and the natural stillness of this remote spot was disturbed with the roar of our little 3 1/2. When I spotted the next riffle, I cut the engine and threaded on a fresh minnow, for I had a feeling this was going to be a productive stretch.

Again Lawrence and I guided our way through the riffle with an occasional paddle stroke. Once through, I shot another cast to the right. My minnow struck in a slack water swirl. I turned the reel handle and, as the boat moved on further downstream, the minnow and spinner moved into the side current of the eddy and I had a jolting strike. The fish stayed deep, but fought with such force that he turned the boat in the current and had line stripping from my screaming spool at an alarming rate.

"Brother, that's a fish," Lawrence marveled, as he gazed in awe at the bend in my rod.

"Sure is. Wonder if it's a bass or a walleye," I grunted.

"He's staying deep like a walleye," Lawrence encouraged.

"Yeah, but big smallmouth are noted for doing that, too, Lawrence."

My tiny four pound test mono would only stand so much. I gave the drag a half turn to relieve a little pressure, and continued to hold the rod tip high. For ensuing minutes I gained no line.

"Take the paddle and see if you can manipulate the boat a little so I can get some of this doggone line back, Lawrence," I sang out, a little panicky. I got several winds back on the reel only to have the fish shoot for the top of the water. Out he came, gyrating!

"It's a bass! It's a bass! Gad, what a bass, Lawrence!"

But that was the last we saw of it. With his first jump, the lunker smallmouth tore the hook free from his mouth. I retrieved the line back and inspected the terminal end. The treble hook was still intact. The mono had held. Evidently the hook had just been too small to penetrate and hold in the big bass's jaw. The minnow was a sorry sight — totally pulverized.

I always get an ache in the pit of my stomach when I lose a big fish: I guess everybody does, though. The one consolation I always take from losing a lunker is that they are invariably the fish that I remember most, weeks, months, even years later.

An ideal thing about the float stretch between Franklin and Kennerdell is the series of river islands at just about the half-way point. I had hunted ducks in and around these islands in past years, and had previously planned that Lawrence and I would spend our night on one of them. They offered an ideal campsite, and we would be away from the river bank shrubs that often hold a concentration of biting insects.

In addition to our spin rods and minnow bucket, our river boat also contained a two-man backpacker tent, our sleeping bags, a cooler of grub, and a mini-stove. About 5:00 p.m., we beached the boat on one of these islands, unloaded our gear, and on some high ground back off the river's edge, nestled our tent in the weeds, hoping that the island grass would cushion our beds. We had not included any mattresses with our gear. While Lawrence arranged our sleeping bags in the tent, I filleted the few bass and walleyes that we had kept for the evening meal. I popped them into a bubbling quarter pound of butter, garnished this gourmet table fare with salt and pepper, and in no time we were eating.

The fillets consumed, we backed them up with a warmed can of beef stew, then relaxed for a half hour before starting the evening fishing.

Right in front of our campsite were a series of riffles that provided ideal smallmouth and walleye habitat. Lawrence and I wet waded, casting our spinner-minnow rigs, moving downstream from riffle to riffle.

It was a memorable evening. The smallmouth in particular were cooperative. The weather was warm, but still threatening, and the biting insects were not out on the water.

We fished until we could no longer see to thread our minnow rigs. And, as we terminated our fishing, the moon peaked up over the Allegheny Mountain ridge to the east, breaking through the cloud cover. We hoped that it would be a dry night and fine fishing the following day.

Lawrence was dog tired and went straight to bed. I sat on a streamside river rock, enjoyed the quietude of this remote spot, and forgot all the troubles of daily life.

As luck would have it, that night it did rain. The light nylon tent was intended to be water-resistant, not water-proof, but it mattered little, since the weather was so



The author saved a bass and a walleye for the pan.

warm. By dawn, after a series of several thundershowers, our sleeping bags were pretty well soaked through.

We got up, donned our soaking wet trousers that had been sitting out in the rain all night, waded into the river, and caught our breakfast of walleyes and bass, and in no time they were golden brown in our skillet over the little mini-stove.

We augmented the fish fillets with two scrambled eggs apiece, then started to clean and break camp. It must have been 10:00 a.m. until our boat was loaded and we headed on further downstream.

When you are making a float on a relatively large river, I think it is wise to use a boat of reasonable size, and even more important, take along a motor. On some big rivers, there are numerous slack water stretches. Meet an upriver wind on a slack water stretch, and all you end up doing is paddling — no fishing. This is where to crank a little outboard into life and motor out of a non-productive stretch into one more productive. Our boat was 12-foot fiberglass, the motor was a little 3 1/2 horsepower air-cooled job. We found the boat and motor ideal for this stretch of the river.

There were some great riffles between our river island overnight spot and Kennerdell. I remember one in particular that we floated back through three different times and had good success every time we dragged our spinner-minnow rigs through the fishy looking spots. As I recall, it was the very first riffle and eddy below the last series of islands where we had camped.

On both days we ground to a stop on shallow spots. But that was no problem; we'd simply get out of the boat, walk it down through the shallow section, climb back in, and off we'd go again. During August, we expected low water, but there was no problem getting from place to place. All through the summer you can expect varying water levels. Seldom is the Allegheny ever dangerous if you take the proper precautions.

Keep your boat straight as you go through each minor

white water section. Keep on the lookout for large rocks, and avoid them. Personal Flotation Devices are required by law and are good common sense.

By the time we reached our takeout point at Kennerdell, both Lawrence and I had taken smallmouth and walleyes. We kept a few for photo taking, but most were returned to the Allegheny River in hopes that they'd grow to lunker size and someday offer even finer sport than they had given Lawrence and me.

I like river floats for several reasons. Number one, it gets me away from the fishing crowd. Sure, you have to carefully pick where you are going to make a river float, but by simply checking a map, you can choose float waters that are away from roads. This, of course, is the key. Secondly, I think that float fishing gives me the op-

portunity to get into many prime fishing spots in the course of a day's outing; prime fishing spots that haven't been fished by others in the last ten minutes, the last hour, the last day, maybe even in the last week or month. Thirdly, there's something about remote quiet spots — seems I have a need to seek them out — they make me feel content.

If you'd like to find some successful fishing and some solitude, try a float trip. The Allegheny River is a great one to consider, but no matter where you live, there is float fishing nearby. I'm betting there's some doggone good float sport close to your home, and that it hasn't been experienced by many. Why not explore a little? You'll be amazed at the fun, satisfaction, and success you'll encounter.

Utilizing a canoe paddle as a filleting board, the author sets about preparing a riverside fresh fish fry.



*A periodic tune-up
will do wonders for
your outboard motor*

There's Still Plenty Of Boating Ahead!

*Photos and technical information:
courtesy of Evinrude Motors.*

Way back in spring, the first warm breeze sent a good many outboarders scurrying to the launch ramp for that first day afloat without giving any more attention to their rig than a check on the fuel supply — hoping Old Betsy would “do her thing,” just like last summer. Their enthusiasm is understandable. After all, it was a long winter! The performance of their craft, however, might not have come up to their expectations. “How could she have *aged* so in those few months?”

Well, the boys up at Evinrude Motors tell us that even a few months of inactivity may make considerable difference in operation, performance, and safety. “Safety?” Right! How’d you like to have your motor conk out in a storm on a large lake or while negotiating a swift upstream current?

Many boaters, however, donned heavy clothing back in those cold spring days and gave their outfits a thorough pre-season equipment check and have been having a ball afloat ever since! You can recognize them easily — they’re the ones cruising by as you continue to crank the engine while Mom and the kids are paddling!

If, in your enthusiasm to “get with the action,” you neglected to give your motor the attention it deserved earlier, don’t despair; there’s enough of the boating season left to make it worth your while to check it out thoroughly now! The whole project can take less than a day — even doing a thorough job. Start by removing the spark plugs (don’t replace them until the rest of the work is completed). If they’ve only had a “few hours” of operation, they may be cleaned and the gap reset. But if they are at all questionable, replace them with new ones. With gasoline prices soaring, it’s the cheapest way across the lake. Inspect the connectors and rubber insulator caps. Remember that hard starting, rough idling, and excessive fuel consumption could be a direct result of poor conditioned spark plugs. With a spark checker you can also check out your condenser, breaker points, coil, etc.

Look for cracked or frayed wires. A straying spark might ignite fuel, resulting in an explosion. Use electrician’s tape for temporary repairs, but replace the entire wire as soon as possible.

As expensive and in short supply as fuel might be, it’s still best to get rid of last year’s fuel. It can be used in some lawn mowers; or, used for cleaning off grease — **provided it’s done out-of-doors and away from your garage**

or home. Do not, under any circumstances, use it indoors or in poorly ventilated enclosures of any sort. A few tablespoonfuls, vaporized, can blow you out of the boating business forever if inadvertently ignited by a spark or someone lighting up a smoke — *for the last time!* Remove and clean your fuel filter; wash it and the bowl in neutral spirits. Any clogged or gummed filters should be replaced.

Change the lubricant in the lower gearcase, checking for any signs of water or metal chips in the old fluid. If the results are positive, have a qualified marine dealer inspect the unit for cracks. When refilling, use the manufacturer’s recommended lubricant.

Damaged or misshapen props can mean the difference between achieving rated speed, maintaining maneuverability, and reasonable fuel consumption. A marine dealer is capable of grinding down any nicked prop blades and resetting the pitch. If the dealer recommends a new prop, save the old one for emergency use.

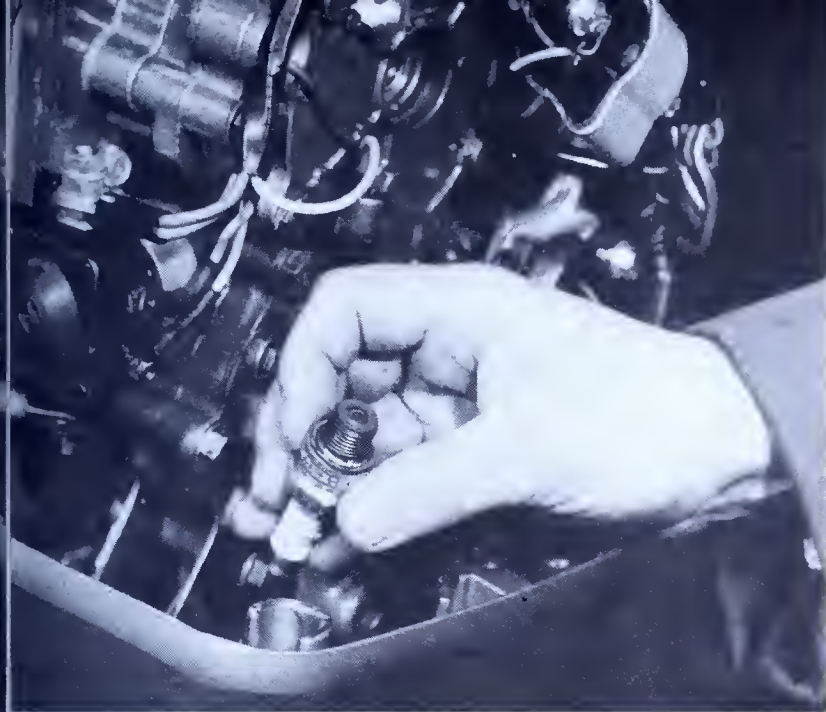
Refer to the owner’s manual for the greasing of fittings and connectors and coat the remaining metal surfaces with a light coat of oil. In filling the fuel tank, a recommended additive for performance would be a fuel conditioner which your dealer most certainly has available.

The boat’s hull itself (*and most importantly, the part you never see because it’s always under water: the bottom*) also needs annual attention. It may look like no more than a little scum to you, and so it is; but rub your hand over it and compare the “feel” of it to that of the polished deck above. It can cause enough friction to affect a boat’s performance — *and you thought your motor was losing power!* Your boat dealer can recommend any number of compounds suitable for cleaning your hull — *seek and heed* his advice! While you’re about it, check all of your boat’s chrome hardware for corrosion and pitting. Polishing up the whole rig will take less than a day and you’d be wise to replace badly damaged fittings. If they’re loose, check whether they’re “bolted-through” or simply attached with screws. If their location permits, it’s a good idea to attach a piece of wood backing underneath the deck or gunwale and bolt them fast.

Your boat’s electrical system needs periodic inspection, too; look for worn insulation, check splices, check your battery’s charge, and all light bulbs in your running lights. Dismantling the latter will often reveal corrosion building up as a result of moisture that somehow found its way in — but not back out. Periodic care will result in longer life for all of your boat’s accessories.

The steering system should also be given a thorough check. And, if you’re not the greatest mechanic ever to come down the river, have a competent boat dealer check this one out. **At high speeds, in crowded waters, your steering must be dependable.**

In another important area, no expertise is necessary — just good common sense. And that is checking out your **Personal Flotation Devices**. Fortunately, today’s materials are more mildew resistant, and the fabrics are stronger — but wear and tear are inevitable. If yours don’t meet the highest standards, replace them! This is the last place to skimp. For the price of an average picnic lunch you can buy a new PFD that might save a life — *whose* life, isn’t important; **saving one, is!**



bove: Inspect spark plugs for corrosion and proper gap.
 ew set might be cheap insurance for trouble-free operation.



ve right: Check ignition system for loose connections.
 lace any wiring with frayed or cracked insulation promptly.

ht: Clean your fuel filter with neutral spirits.
 v clogged or gummed filters should be replaced with new ones.



ow left: Propeller nicks encountered last season can
 eground down by your dealer, but replace badly damaged props.

ow right: Using a lube recommended by the manufacturer,
 eal the lower unit until new grease appears in the top hole.



*Southeastern Pennsylvania anglers
can have a barrel of fun with —*

Chester-Octoraro Crappies

by George E. Dolnack, Jr.
photos by the author

Nine year old Pete opened up the minnow bucket and scooped out a shiner with the small net and ran his #6 hook through the back just under the dorsal fin. Then, making sure his small bobber hadn't slipped, he dropped the line into the water. Weighted down by the split shot above the hook, the minnow slowly sank until its downward progress was stopped by the float ten feet above.

Pete lowered his rod and watched the bobber intently. Soon the red and white orb twitched and then rocked before it skittered through the water. When it went under, Pete raised his rod tip firmly but gently and hauled in a flapping white crappie. He looked my way and shouted, "Got another one, Dad! Looks like you're going to be busy!"

I walked over to him, took the fish from his hand and added it to the stringer that was already laden with crappies.

Pete and his brothers Chris and Steve were fishing the 625 acre Chester-Octoraro Reservoir, located off Route 472 near Mount Vernon in Chester County, and owned by the Chester Water Authority.

That trip started *the night before* when Waterways Patrolman Ray Bednarchik told us that the crappies were hitting at the reservoir. It was August and I had been working out of town so this would be a good opportunity to spend some time with the boys. Besides agreeing to act as their guide for this trip, I also volunteered to clean all the fish that they caught! They delighted in this promise and when morning came they could hardly wait to get started.

After arriving at the reservoir, we made a beeline for fishing headquarters at the bait and tackle shop where Kenneth N. Russel, Sr., custodian of the facility, was preparing for the day. We exchanged fishing talk, bought four dozen minnows, and then headed for the bridge on Spruce Grove Road where all the action was.

Some other anglers were already there and having



Chris and Steve Dolnack check their crappie catch —

quite a bit of success. It didn't take long for the boys to start knocking off the crappies. And if there is anything that will keep young anglers from getting bored, it's plenty of fishing action, no matter what's on the other end of the line.

By the time their supply of minnows, lunch and refreshments were exhausted, the boys had caught 31 crappies, one bullhead and a sunny. I had my work cut out for me when we got home, but it was worth it. The fine flavored white flesh of the crappie makes a unique and delicious eating experience when batter-fried.

The crappie, known by at least 55 other names, is a schooling fish, feeds on *all* forms of aquatic life, and readily devours small minnows. More slender than the black crappie, the white crappie's silvery body is accentuated with broken vertical dark stripes and this fish likes still water.

These soft-mouthed fish are taken in great numbers on small jigs, flies, and spinners during the spring and early summer when they spawn. This is the time when the



H. Claude Miller, above, is one of the regulars at Chester-Octoraro Reservoir. Notice his rod holder and specially made seat, both fit the bridge railing!

Pete Dolnack, below, is unhooking a white crappie. Warm weather crappies run small while those caught during the spring may run up to a pound or better.



— dark vertical bars distinguish whites from blacks.

larger “slabsides” are taken and it’s not uncommon to latch into one-pounders once a school is located.

The Chester-Octoraro Reservoir also holds some impressive lunker size fish that any angler would be pleased to tie into, and the wall is full of photos in the bait and tackle shop to prove it.

Some of the top catches include a 24½”, 5¾ lb. brown trout; a 51½” 27 lb. northern pike; a 47¾” 23 lb. muskie; a 23¼ lb. blue channel catfish and a 6 lb. largemouth bass.

In addition to the availability of a launching and docking facility, a small picnic area is provided near the parking lot.

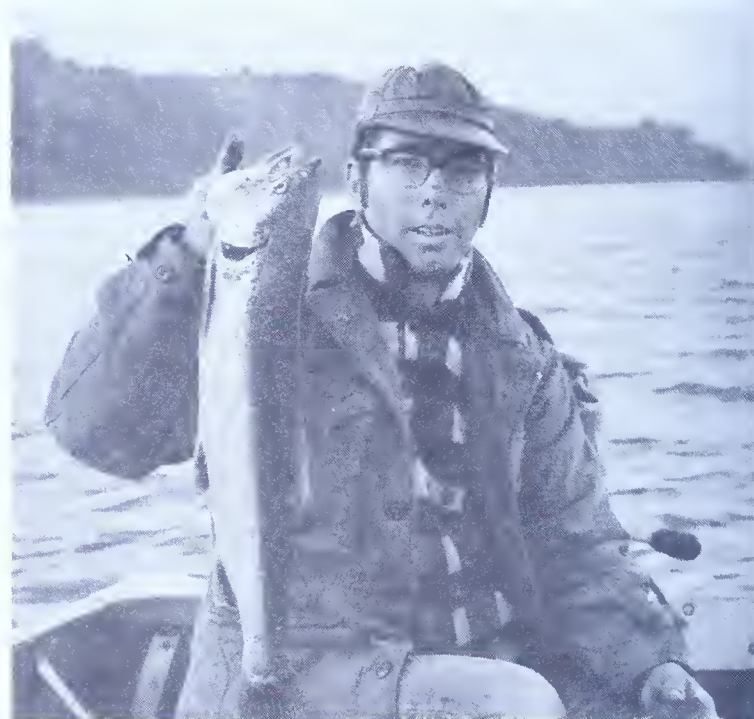
Boats that can be rented for a nominal fee are placed in the water in mid-April and taken out the last of October. During this time, fishing is permitted in the reservoir from 6:00 a.m. to 8:30 p.m.

Electric motors are allowed on the reservoir, but ice fishing, swimming, bathing, camping, fires, and pets are prohibited.

How to catch Coho & Chinook

A Prelude to "Salmon Season"

by Jerry Wunz



Bob Anderson with his hefty Lake Erie Coho Salmon.

Netting a fish for someone else can be almost as much fun as catching one yourself. But after I had waited, net in hand, for nearly ten minutes without so much as a glimpse of what was bending Bob Anderson's rod, it began to get tiresome. I've fished with Bob off and on for over thirty years and have yet to see him play a fish more than necessary. Even so, in my impatience to get back to fishing, I was about to tell him to apply the pressure and get it over with when I realized that he knows what he's doing when it comes to playing a reluctant salmon. Obviously, **this was no ordinary salmon!**

I respected Bob's judgment because he has crammed more experience into the six years of Pennsylvania's salmon runs than most of us could hope for in a lifetime. Spending nearly every September through October dawn on his beloved Lake Erie **and catching 40 or so salmon per year** puts him in the "super-expert" category!

There aren't many fishermen in Pennsylvania who can claim real expertise yet with cohos or chinooks, simply because the sport is relatively new. There's still lots of room at the top and the shortest way up for the beginner is to "pick the brains" of the regulars like Bob. I did — and have caught a few fish — even "limiting out" on one or two occasions before my mentors. But, unless the "down state fisherman" (as we are called by the Lake Erie locals), knows what to expect before he travels to the big lake, he is apt to be disappointed by water too rough to launch a boat on, disgusted by crowds at the hot spots, or frustrated by not knowing where and how to fish such big water.

True, the lake can get roaring rough and stay that way long enough to ruin the trip of a boat fisherman. But, some of the lower reaches of the larger tributary streams have now been opened to fishing so you can at least wet a line in a sheltered place. The crowds can also be bad, particularly on weekends, but the fishermen have adapted their trolling patterns and fishing methods to avoid strife surprisingly well. Besides, it's a big lake and

all the salmon aren't at the hot spots. And regarding the "where and how", the beginner can take heart in the fact that all of Pennsylvania's *super salmon fishermen* were just like you as recently as 1968. That was when the first jack (immature) cohos returned to the tributaries they had descended to the lake as little smolts only six months before.

I was one of the tyros then who was lured to a deserted creek mouth on the lake shore before dawn by the chance of catching a first salmon. Something stopped the second retrieve of a small spinner and after a short, but lively tussle, I beached a 16" trout-like fish. It was later verified as a coho by a biologist at the Fish Commission's Access Area at Walnut Creek.

Bob had been skeptical that the 6" smolts released from their upstream rearing pools in the spring would be able to hack it in the lake that he had disgustingly watched deteriorate over the years. But, when I showed him this fish, his curiosity was aroused to the point that he had to see for himself if that salmon of mine, and the few others that had been caught, were the *exceptions* — or the *rule*. So he trolled the lake shore near the creek mouths and limited on the 1½ to 2½ lb. jacks nearly every time out. Even the first morning of small game season saw him catch two salmon and one rainbow trout before he took his gun and dogs to the fields. He was hooked for good!

And so was the fish that Bob finally began to pump up to the boat. This one didn't jump like cohos usually do. It stayed deep, making several line-sizzling runs, so we weren't surprised to finally see the fish was a big one. Bob fishes with line no heavier than 10 lb. test because he believes salmon shy from a lure towed by heavier line. And the fast runs the salmon is capable of, even when it appears ready to be netted, have taught him to fish with a loosely set drag.

I held the net deep as Bob eased the apparently spent coho over it. I lifted slowly, because they are noted for net-shyness, and swung the flopping fish aboard. It was a



"Surf casting usually turns into a wetting and disappointing experience when a storm is raging."

beautifully proportioned female with sides that showed the origin of its other Pacific Coast name of silver salmon. Its weight of 10½ lbs. was the heaviest weighed at the Fish Commission check station scales. It didn't stand as a "record", however, because longer and heavier fish since have been checked. Only lengths are considered for official State Records by the Fish Commission because accurate scales aren't always available for weighing.

As soon as the fish was landed, the boats of Bob's many friends and acquaintances converged to find out how big it was, and what bait he was using. I'll bet almost every occupant in the fifty or more boats trolling in that locality knew what it was taken on within ten minutes. What a grapevine! But this candor regarding a successful lure wasn't always so. I recall the early years of salmoning on Lake Erie when hot lures were closely guarded secrets.

It's not so much that way today because nearly everyone is familiar with the best lures. Besides, you never can tell what might interest salmon next year, or next week, for that matter. The first year the adult cohos returned it was those narrow-bladed spinners on brass or glass-beaded bodies that consistently turned the trick. They haven't done much since. Then it was the broad-bladed spinners and wobblers or spoons that were hot. Next it was hairy tails on the spinners. Now the narrow-bladed spinners have made a comeback; but, this time with painted solid bodies and hackle-covered hooks. No one is betting what will interest the fickle salmon next fall!

One thing that doesn't seem to change is that early morning hours are usually best. Bob is on the lake with his 14-ft. outboard while it's still necessary to use running lights! Often in early fall the lake is relatively calm at this unearthly hour because offshore winds are the rule at night and early morning when the atmosphere over the still warm lake rises and cooler air from the surrounding land rushes in to replace it. This is a favorable

phenomenon for the salmon fisherman because it's easier to fish and the salmon seem to hit better when the lake surface near shore is calmed.

Bob wouldn't trade the short pre-sunrise period for the rest of the day and he spends it trolling slowly close to shore where the creeks enter the lake. In this dim light and shallow water, brighter colored and lighter weighted lures that ride high when trolled on a short 50 to 60 foot line seem to work best.

As the morning passes, and more boats and shore fishermen converge, the fish seem to be "put down." Then, trolling farther from the creek mouths — either close along the shore, or out in deeper water off the creeks — with darker colored lures is worth a try. Usually, the heavier or deep-running spinners, plugs or spoons, fished on longer lines are most productive in deep water — but not always so.

There are days when even the experts are forced to go through their tackle boxes in hopes of coming up with a winning combination of lure, line length and trolling speed. This is a poor time to experiment, however, because it's already obvious the fish aren't in a hitting mood.

What makes salmon bite anyway? Their stomachs are always found empty and shriveling when they begin their spawning run. Maybe "attacking" something that resembles their food is just part of their nature. The fact that lures larger than two or three inches long (about the size of the emerald shiners and smelt that proliferate in Lake Erie) don't seem to work gives some credence to this theory. Likewise, up in Lake Michigan where larger forage species (mostly alewives) are common, salmon are caught on larger lures.

How a salmon strikes can be almost as variable as the lure type and color that he finally decides to hit. Often it's that unmistakably smashing thing you've read about. Nearly as often, however, your line will merely go slack as he picks up the lure and swims forward with it. You've really got to be on your toes to hook this fish before he

can drop the lure. If he drops it before you can strike he may continue to follow and hit again. So be ready.

If you have all day to fish, you can wait until the boats thin out. This reduced disturbance allows some of the salmon to re-congregate and settle down at the creek mouths. Or you can try the less popular tributaries, some of which enter the lake as mere trickles during a dry autumn. Nonetheless, these sometimes host a significant salmon gathering. Look for jumping or porpoising fish anywhere along the shore and try fishing there.

This is a good time to try the bizarre lures. You might find a killer like I did one day in a 2½-inch balsa plug that hasn't worked very good since. I've also seen salmon taken on deep running plugs with paint jobs that resembled no living creature in the lake. Bob is a spinner man, though, and his results have been consistently good enough to prove he might as well stick with them.

The more recently introduced chinook, or king salmon, haven't been Pennsylvania residents long enough to document a definite lure preference. Bob has noticed, however, that cohos like lures with hair or hackles on them, while chinooks seem to prefer them without.

One thing for sure, the kings have lengthened the salmon catching season by showing up around Labor Day, three weeks ahead of the silvers. They have also raised the blood pressure of the anglers lucky enough to hook a big one. Last fall, Bob had the exhilarating experience of hooking and playing a *yard-long* chinook for a full twenty minutes before the disappointment of losing it at the net!

Salmon are also taken by casting from drifting or anchored boats, or from the shore. But, because the trolled lure spends more time in the water and covers a greater area, Bob has found this method most effective. He catches enough fish by trolling to make him give up and go to work on a morning when a "nor'wester" has the lake churned up too much for comfort or safety. He can wait until it calms down; and, he's found that after a storm can be one of the best times of all to take salmon.

But if you have made the long trip to Erie and find the lake is in a mean mood, you may not have time to wait for it to calm. You can try surf casting, which usually turns into a wetting and disappointing experience when a storm is raging. Your best bet is to try your luck in the protected mouths of the larger creeks which have been opened to legal fishing during the past two or three years.

Since creek fishing for salmon after they have started their upstream run is a relatively recent experience, options for experimenting are still open. The same lures that work in the lake also work in the streams until the fish, which are concentrated in a few pools, become lure shy. Natural baits seem more reliable, the most commonly used being salmon eggs, either canned or fresh, and usually fished with bobbers. This bait is apt to coax as many rainbow trout (also on a spawning run) to bite, as salmon. Some of these trout are real "steelhead" trophies and they are difficult to distinguish from salmon by many fishermen, but they are legal to keep and are included in the three fish limit.

It seems that the techniques for catching them are not hard and fast rules. This was made quite clear to me last fall by two fishermen I encountered at Elk Creek.

They were sitting beside a long placid pool, with their rods propped on forked sticks, just like they were fishing for suckers. When I asked what luck they'd had, they proudly lifted stringers with a 10-pound plus chinook on each! And, when I inquired about what they were using for bait, both replied, "**Nightcrawlers!**"

It was hard for me to believe that such a hyperactive fish as a king salmon would stoop to suck a worm from the bottom, so I hung around until one of them reeled in after missing a hard bite that nearly pulled his rod into the creek. They were telling the truth!

That was proof enough that: *a power boat isn't absolutely necessary to enjoy salmon fishing; that the best way to catch them may not have been discovered yet; and, that there are at least two salmon fishermen whom the energy crisis won't affect very much!*



Left: The author admiring his Lake Erie limit.

Right: Wilbur Smallwood's KING-sized Chinook.



"This is the Captain Speaking"

by Capt. C.E. Leising USCG (Ret)

Director

Bureau of Waterways

One of the more important new regulations recently promulgated under authority of Act No. 400, the "Motor Boat Law," is Regulation 4.12, intended to protect persons carried as "passengers for hire" aboard vessels which carry more than six such passengers on waters which are solely state waters. Such a vessel operating on federal waters — such as most of our large river systems or federal impoundments — is subject to regulation by the U.S. Coast Guard and must be annually inspected and manned by persons certified by the CG as competent. Until Regulation 4.12, the same vessel operating on state waters - which might easily be as dangerous - has been subject to no special regulations at all - except that requiring a CG wearable type PFD for each person on board. The buoyant cushion (Type IV) was not allowed on vessels carrying passengers for hire.

This was recognized a number of years ago as a dangerous gap between federal and state efforts to ensure the safety of those who bought a ticket for a ride confident in the belief that somebody in state or federal government had licensed or approved this commercial venture. It seemed to us that your family — taking a boat ride offered by an operator engaged in a money-making business — should be protected against the dangers of an unseaworthy vessel, or an incompetent crew, regardless of whether the vessel is on federal or state waters.

Because the planning and implementation of a program which was bound to increase the workload of our "thin green line" of waterways patrolmen takes considerable staff work, and since the safety record of the approximately 25 "carriers" who would be affected was perfect, we kept our fingers crossed, hoping for its continuation. Yet we knew that the state would be badly embarrassed by the absence of any protective regulations — in the event of a tragedy. It is the sad truth that all marine safety regulations — and probably also in other fields — are written *after* a disaster. This time we have written one *before* the tragedy which seemed, to us, to be just waiting to happen. Hopefully our action will at least *delay* it.

The need for a regulation became more urgent when considered in connection with our Capacity Plate Program. Most states, incidentally, have no such program at all. The several which do supplement the recent federal law do not approach Pennsylvania's for service performed or protection afforded. We became aware of a 41-foot, 2-deck replica of a stern-wheeler for 85 passengers being built. There were neither state nor federal regulations (because this vessel was to operate on solely state waters) that could stop the operation of what was manifestly to be an unstable vessel engaging in the passenger carrying trade. There is now! And, unless the

design is altered and certified as seaworthy by a naval architect, *this vessel will not sail!*

The problem in designing this program was to get something effective without having to expand our field forces with trained marine surveyors or issuing a booklet of specifications and regulations covering the vessel from stem to stern and truck to keel. The key to the solution was to put the burden upon the owner. The owner must know his vessel better than any inspector who looks her over once a year can ever get to know her. So, it seems just that he be required to certify that he has, "thoroughly inspected my vessel and, except as noted, have determined to the best of my knowledge and belief that there are no unsafe or hazardous conditions." The inspector then certifies that his own thorough inspection has revealed nothing to indicate the vessel is not safe. The difference is important: the OWNER says, "I know my vessel is seaworthy"; the INSPECTOR says, "I cannot find anything unsafe." The owner, whose business it is to know the vessel's hull and machinery history, her maintenance and operating difficulties, etc., cannot conceal these deficiencies long enough to pass inspection and then load the inspector with responsibility for not detecting them in the event of a casualty.

The basics of this program will be:

(1) Vessel "qualifies" for a Certificate of Inspection by: (a) having her suitability for the route and trade intended established by an expert; (b) submittal of a Vessel Characteristic Record listing all machinery, hull and equipment data; and, (c) submittal of a Certificate of Insurance showing adequate passenger liability coverage. Since most insurance companies require a survey it is expected that (a) and (c) above will bring about employment of a licensed Marine Surveyor to inspect the vessel.

(2) Vessel is inspected by owner and District Waterways Patrolman using a check-off list furnished that is to serve the owner in preparation for the inspection. The Certificate of Inspection issued by the Commission shall be displayed on the vessel where it can be seen by passengers and shall indicate its current validity by the current year Inspection decal placed there by the inspector.

(3) Vessel is to be at all times under control of a person holding a valid Certificate to Operate issued by the Waterways Patrolman after a professional examination and presentation of a doctor's certification as to good health and eyesight. This Operator's Certificate shall be mounted alongside the Certificate of Inspection and have attached a photograph of the operator.

Recognizing the problems associated with instituting a new program, we are allowing owners of "existing vessels," i.e., those which operated during 1973 on the same route, until May 15, 1976 to qualify. A "new" vessel going into the trade for the first time is not given any delay waiver. By July 1, 1974 both the Certificate of Inspection and the Operator's Certificate should be posted where all passengers can see them and enjoy their cruise with the added enjoyment that somebody cares enough about their safety to have done something about it. As you put your wife and kids aboard, you will now be able to check whether the boat and operator have been checked!

CO-OP NEWS

by Bill Porter

The honors, or the "Purple Hearts", go this month to the Upper Dauphin County Conservation Club from Dauphin County, obviously. Over the years in this feature, we've given a number of nicknames and accolades to a variety of clubs for a variety of reasons — in many instances they have related to a club's ability to overcome a particular problem or adversity. Then we ran into the Upper Dauphin outfit and found a history of incredible hardships and perseverance, and we also found we had run out of adjectives to fit the situation. So read the following facts, take a look at the pictures, and select your own appropriate vocabulary.

Initially, the club formed in early 1969 to improve Rattling Creek for trout fishing and the cooperative nursery came later. Float boxes were the first project for better distribution of pre-season Fish Commission trout that year. In May of the same year, the club began a series of stream improvement devices and by September had installed six major units. So far so good.

It was also about this time that the Upper Dauphin County Conservation Club decided to get into the cooperative nursery business. Several sites were examined with water tests, access, and other issues considered. Approval received, the club began construction in June of 1970. The raceway was a good one of poured cement and block walls, 50' x 6', and total screening over-all areas containing fish. The first fish arrived in August of the same year. Interest was high; the nursery had a name, the RATTLING CREEK TROUT NURSERY; and things looked very good.

Then in December, disaster struck. (By the way, we have adjectives here but can't use them — read on; you'll see what we mean.) **The 3,000 brown trout had been deliberately poisoned!** Tests proved later that the material used was some type of caustic soda, or some type of cesspool cleaner. It was deliberate vandalism that caused the club a lot of mental anguish. The case is still unsolved, but that doesn't mean the boys have forgotten!

Physical support for the problem came from the Potter County Anglers, who donated some of their fish to the Dauphin County lads to keep them in business for the moment. Four additional stream improvement devices were made and installed; so that by July 1971, ten units were in operation. Things started to look good once more.



Raceway of Rattling Creek Nursery was filled with boulders after Agnes.

Again a major blow occurred when a runoff of mountain water, high in tannic acid, wiped out half of the 1971 population. Things went from bad to worse: the intake pipe froze on one occasion, requiring the building of fires, maintaining them, and the use of blow torches to keep the water flowing through a severe cold snap.

The spring of 1972 started well with plans to improve the intake system, increase the length of the raceway, and add more to the scenic quality of the nursery already set in a very picturesque location along Rattling Creek as it tumbled down to Lykens.

And "tumble" it did — right into Lykens as Agnes hit in all her fury. The nursery was completely destroyed. The creek became a raging torrent that rolled boulders along like pebbles. The raceway was filled with the debris; the storage shed was smashed and shoved downstream to end in a tangled mess of junk in the roots of an upturned tree. As the flood waters dropped, we visited the site. The whole narrow valley was a jumble of rocks, upturned trees, and debris of all sorts. Not a grain of topsoil could be seen and the vegetation gave testimony to the height and fury of the raging waters. It seemed the end — just how much could the sportsmen take, keeping in mind the more immediate problems of flooded homes, roads, and businesses?

Well, apparently they could take quite a bit. In August of 1972, the nursery was back in operation with the original 50' being cleared of debris and repaired! Two visits to the nursery, one in the early part of 1974 and another in early May showed more improvements.

Again, materials have been stockpiled for the 75' extension that had been "somewhat delayed." Topsoil has been added and grass planted; shrubs and young trees were placed at varying vantage points; and a dike thrown-up to prevent normal high water from coming into the nursery. The intake system was rebuilt and new pipes were laid. The outlet was set in below the extension area, using a sturdy steel drain pipe well-anchored. There is also a new storage building of sturdy construction not unlike a vintage radio-shack unit of some bygone war. Anyway it's there and very useful.

Now it's time for some kudos: a lot of the heavy work, requiring machines as well as men came from the A. and R. Construction Company, Pine Grove, who were working on the reservoir and pipe lines that were damaged by the same Agnes. Club members and other volunteers assisted the cleanup, repair and restoration. And, of course, the project had to be refunded, which it was in a variety of ways, showing the support of the area residents, still suffering their own losses. Members of the National Guard, as their assignments permitted, also loaned several helping hands.

For a few names of fellows met on our various trips, here are some of the prime movers: Paul Foster, nursery manager; Dale Wolfe, feeder; Lee Jones, club president; Paul Travits, vice president; Harry Dietrich, secretary; Herman Hand, treasurer; Bill Reidinger, past president; and Ron Deibert, another active member.

Let's hear it for the Upper Dauphin County Conservation Club and the RATTLING CREEK TROUT NURSERY!



KIDS SAY THE DARNDEST THINGS!

During a fishing school at Center Township High School, we "plugged" the *Angler* and mentioned the new technique of "sniffing" plastic worms to be sure of selecting only those that smelled like licorice. At the second session, a small boy came into the room all excited and said, "Mr. Parrish, I brought two bucks to sign up for the *"Wrangler"* magazine." Still another lad approached Special Waterways Patrolman Denzil Cutright and offered, "I was down at the store the other day sniffing worms when a bunch of my friends came up and asked what I was doing. When I told them, they laughed for fifteen minutes!" Also, during this school, we showed a slide with several different species of fish being compared to a yard stick. I said, "You'll never believe where these fish came from." To this, a boy yelled, "The Ohio River!" "How did you know that?" I inquired. Proudly the lad said, "I was here last year!"

D. F. Parrish
Waterways Patrolman
Beaver County

WEAR THEM!

Does TV have any influence on the public and does the movie industry have any influence on the public? These questions have been asked by important people before but now we have proof that they do. Bill Shaver was talking with some young girls that had come down the Delaware River by canoe to Lackawaxen and they were from New York City. Their statement was that they had seen the movie "Deliverance" and they decided to try the river in a canoe. They loved it and said that we could expect a lot more people this year if they see that movie. I just hope they know enough to wear their PFD's. A lot of people believe the things they see on a screen and don't take the proper precautions.

Joseph E. Bartley
Waterways Patrolman
Pike County

WOULDN'T BELIEVE IT!

If anyone would have told me about the fishing pressure that I was going to

have on the Fish-For-Fun area on Kettle Creek, I wouldn't have believed it. The pressure was terrific and the comments from the fishermen were excellent.

I've had a number of trophy trout taken last spring that were over twenty inches. A 21¾" brown trout was caught by Ernie Getz, of Renova, on a streamer. What got me was to see fishermen on this stretch of water last spring **before the ice went out!** They were doing their fishing in the open water at the head of the pools, in the riffles. These people must have had a "wire edge" to wear off before the regular trout season opened on April 14th.

Kenneth Aley
Waterways Patrolman
Potter County

HE TOLD 'EM SO!

On April 19, 1974 I observed a canoe on Bowman's creek with one adult and two youngsters and two cushion type preservers. I had just stocked the stream this day so the canoeist faced two hazards — cold water temperatures, and *irate fisherman!* So I took the youngsters into my car and took them to the house they were visiting. I advised the adult member of the party that it would be a very good idea to have the youngsters **wear** the preservers, rather than cushions.

On April 21 I received a phone call from the adult canoeist who stated, "Mr. Shabbick, I thought I'd best report to you, before some fisherman does, that I **upset my canoe in Bowman's Creek** as the canoe is tangled up in some driftwood and still in the creek. No one hurt, just our pride!"

Stephen A. Shabbick
Waterways Patrolman
Wyoming County

LOST & FOUND

While at the Northeast Region Headquarters, the secretary, with a sort of bewildered expression, asked me if I would handle a strange phone call. I took the phone and asked the caller if I could be of any help to him. He informed me that while he was fishing along the Susquehanna River, in West Nanticoke, he had found a six-foot python snake and he wanted to know if we would like to have

it. More out of curiosity I told him I would come to his home and pick the snake up. When I got to the caller's residence, he did, in fact, present me with one **six-foot python snake!** The only catch was, the snake was dead. It was still in very good shape and could not have been dead very long!

Claude M. Neifert
Waterways Patrolman
Luzerne County

FISHING & BOATING

At the stocking of Lizzard Creek, Pohopoco Creek, and Mahoning Creek, students from the Carbon County High School assisted. On two of the stockings, senior students, mostly girls, from the Jim Thorpe H.S. Biology classes came along to help to watch. Especially so, when 90% of the students from Jim Thorpe were female, outfitted in hip-boots, who were eager to go right into the creek, spreading the fish, right down the center of the creek. One of the girls was outstanding in assistance to the driver, on the truck, learning how to dip out of the tanks, etc.

An anecdote from a student in our pleasure boating course: After the first session, while at home, doing his homework on the review questions, he had his wife asking the questions. She asked #7: "For safety, must a boat and motor match?" He answered correctly, "Yes". Thereupon, she informed him that they were in trouble! Her exact quotation was, I believe, "But Honey, we're in trouble; we have a white boat and a black motor."!

Frederick W. Ohlsen
Waterways Patrolman
Carbon County

BORN FREE—

Recently while on patrol I observed an individual fishing without a fishing license. As I watched, it became evident that he (or she) was quite serious about fishing—not just fishing for something to do. The longer I watched this individual at his task, the more aware I became of the grace and beauty which were so much a part of his technique. Also, I couldn't help but notice the growing inner feeling I had that this individual's right to fish was granted by a much higher power than any given by man's fishing license. You see, *this fisherman* was an **Osprey**, one of the most beautiful creatures in nature.

Larry Boor
Waterways Patrolman
Franklin County

DID YOU KNOW THAT—

In addition to providing a fine source of recreation, your fishing license dollars help in the fight to preserve our clean streams for future generations?

PORKY PROBLEMS

Almost everyone has seen or heard about porcupine damage, especially around camps and outhouses. I have even heard lumbermen in the area talk about porcupines chewing up bulldozer seats and fan belts. But recently, I saw a panel truck parked along Four Mile Run with chicken wire encasing the undercarriage and wheels. It seems this gentleman was fishing and camping in the area last year and upon preparing for his departure home, found a porcupine had chewed off his brake fluid lines as well as tasting his tires. Cost of damage? \$95.00!

*Paul R. Sowers,
Waterways Patrolman
Warren County*

OLD RELIABLES

Way back in spring, the "Great White Fleet" was in high gear delivering trout. Now is the time to express appreciation to the sportsmen who performed the actual stocking. Two will be mentioned, but hopefully it will be considered a blanket expression of appreciation to all. George Raffield not only uses his pickup to haul fish to remote sites but also **fills it with litter to be discarded later, in proper receptacles.** What a change in landowner attitudes this practice could create if all sportsmen would duplicate his *positive* action. Charles Brunner, 73 years young, helped stock in '72 and never had the opportunity to catch one trout. Prior to opening day, he was admitted to a local hospital for a lengthy stay. After vacationing in Florida over the winter months, Charlie was back carrying and spreading for '73.

*H. Benjamin Leamer
Waterways Patrolman
Perry County*

DOUBLE TROUBLE!

On March 24, 1973, District Game Protector Lynn Keller and Special Waterways Patrolman Tom Greene apprehended two fellows fishing in Trout Run, Clearfield County. Before I had a chance to talk with the arresting officers, one of the violators called and told me the only reason they were fishing that stream was because they thought it was polluted. I proceeded to tell the caller that Trout Run was a stocked stream and

that it was closed to fishing from March 15 to the opening day of trout season. There was a slight hesitation and then he asked if it was okay to fish without a license *as long as the stream was closed.* You guessed it, **neither one had a license!**

*Edward W. Brown
Waterways Patrolman
Clearfield County*

WON'T THAT HURT THE FISH?

While I'm in the field, my wife is the chief "in charge" of answering the telephone. On a day when a stocking is scheduled, she is prepared for an unusually busy day with the phone. One of the normal questions asked, especially on a rainy day, is "Are they still going to stock the fish?" Her reply is, "Yes," giving the time and place. The usual second question is, "Won't that be **harmful** to the fish?" Her reply is, "I don't imagine it will, because the fish should be accustomed to water by now!" Then there is a silent period before the caller admits he didn't think before calling and asking that type of question! Usually a more informative discussion follows, with more information being made available than was originally anticipated by the caller.

Is this type of question about rain unique? No, it's quite frequent!

*Frank Schilling
Waterways Patrolman
Philadelphia County*

POCONO PICKEREL ARE TOUGH!

SWP Ben Overholts reports that while ice fishing on February 3, 1973 at White Heron Lake with Jack Wint, Bill Detweiller, and Joe Bator, one tip-up spool was pulled through one of the holes and disappeared. On March 9, 1973, while fishing the same lake by boat, the lost spool was observed floating and was retrieved. After unsnagging the line from several sunken stumps, it was discovered that Mr. Pickerel was still hooked. The fish was landed and found to be none the worse after five weeks of being held captive on approximately five feet of free line! This pickerel measured 28 inches and was returned to the lake in apparently good, **but hungry** condition. Reports have it at White Heron Lake that for several days after March 9th, many small fish were observed breaking water in frenzied effort to escape being eaten by "something".

*Walter Burkhardt
Waterways Patrolman
Monroe County*

NEW "TROUT"?

Recently while Assistant Supervisor Murawski and I were presenting a Fishing School at Portage, in Cambria County, a gentleman asked about "a new kind of trout" we were stocking in area streams. It seems that he was told by some buddies that we were stocking a cross between a rainbow trout and a brook trout. He said that he had been told that this cross was called a "Sprite". I told him that he was probably referring to the "Splake" which is a brook trout-lake trout cross. Some Splake had been stocked occasionally in local streams. He insisted that the fish he was referring to was called a "Sprite". I can only assume that his buddies were pulling his leg or we have started stocking soft drinks! Unfortunately we do see quite a few brands of soft drink cans "stocked" along the banks of our waterways. I am sure that the brand he referred to and all others are well represented!

*Walter A. Rosser
Waterways Patrolman
Blair County*

"TRACKING"

One youngster called me on the phone to find out if I had stocked a certain stream. I told him that we had. He said that he was down to check the stream over and could find no tracks. I told him that the trout stay in the water and do not track up the bank. He said, "No, not *fish* tracks, *men's* tracks — from stocking the fish." I told him to go there the first day, put some bait on his hook, and enjoy his fishing and not to worry where the exact stocking of the fish took place, since they swim up and down stream anyway!

*Bernard D. Ambrose
Waterways Patrolman
Elk County*

MORE TO IT THAN MEETS THE EYE!

"Skip" Leeper of the Lewistown Kiwanis Club invited me to present a program at a recent meeting. I must say it was one of the most enjoyable evenings I have spent. I used a selective tray of slides dealing with funding, activity, and Fish Commission organizational structure. The response was just great.

You know, it's amazing how many people are totally unaware of our various activities and the recreational and economic impact these have on the overall well-being of an area.

*Richard Owens
Regional Supervisor
Southcentral Region*

*For low water,
late season angling,*

Try the "Spider"

by John F. Busch, Jr.

Looking upstream, you cast a wary eye at the first couple of pools and labor at stringing the line through the guides. The stringing job finally completed, you debate and then decide to cut off yesterday's 7X tip-pet and retie with a fresh one a foot or fifteen inches in length. To this you affix the fly and take a halfhearted stab at straightening the nine or ten foot leader. Your hand wraps around the smooth cork grip of the rod and once again, as hundreds of times before, a feeling of intense satisfaction wells up at the perfectly balanced equipment that projects to a fine point in front of you. Next comes a moment or two to grease the fly and then the scramble down a medium high bank at the water's edge, carefully holding rod high so no harm shall befall it.

It's a beautiful late summer day and the next few unhurried hours will live in your memory for many seasons to come. You begin to place one boot foot in front of the other up that first shallow riffle, watching a narrowed section of the stream where a deep, fast riffle runs along the bank on your right, thirty feet ahead and shadowed by a huge hemlock. The water is low and clear and the stream bottom is clean, exposing boulders of various size. The false casting begins . . . the line flows smoothly because your timing and precision have become second nature through the early spring season. The large, sparsely-hackled dry fly drifts gently to the tail of the riffle, cocks upright like its counterpart, the thistledown, and begins a four or five foot float toward you.

This is the beginning of an afternoon in late season with the *Spider* dry fly. You carefully work the riffle, moving up a step or two at a time but no fish is attracted to your offering. Disappointment never enters your mind because above this riffle a fairly large, flat pool bathes in the warmth of the overhead sun, and you spot the first trout of the day. His lie is at the tail end of the pool, in water no more than a foot deep, and with the help of po-



laroid glasses you see him quite easily. The slow moving water allows the fish, facing upstream, to rest comfortably without movement.

From your vantage point, twenty-five or thirty feet downstream and just to the left, you're in perfect position to present the fly. If you were directly downstream your cast would "line" the fish, and a position further to the left might result in scaring him before the first cast is made. Strict attention is necessary, however, as it is imperative that the fish be not alarmed by the fly, leader or line crossing his line of vision. Right now you're in his "blind spot". His lying in sunlight is to your distinct advantage because the trout's pupil cannot contract to bright sunlight as can yours and mine.

The *Spider* is allowed to alight on the surface of the water only a foot or two ahead and slightly to the left of the fish. Your luck holds, the fish is not alarmed. A flick of the tail starts his upward movement. From your position you mentally measure him at about a foot in length and probably a brown.

Without hesitation the fish intercepts the drifting imitation and a quick but gentle lifting of line off the water results in a satisfying solid strike. This is truly the climax so sought after. The fish makes a fast run for the right bank where the top of a fallen tree lies partly submerged. This works to your advantage as the run of the fish and your stripping of the slack line turns him downstream and into the fast riffle you have just worked. The playing of the fish, however, is of relative importance; does it matter that he gains his freedom if so accomplished? He has already provided his finest attribute, but after bringing him to hand you marvel at this highly colored, well conditioned, late season brown. He measures 13 inches. The prospects of a fine day astream are infinite as you carefully remove the hook and replace this fine specimen in the slow water beside the riffle. Perhaps next week or next year you'll find him in the same position at the tail of the pool and a repeat performance will take place.

This is the kind of late season angling that can be had on our low, clear water, freestone streams. It's in the heat of day, when the sun is high and it taxes your ability and patience to the utmost but it's worth the effort. Perhaps in the mountain areas a few stone flies remain, such as the *Yellow Sally*; but, for the most part, the aquatic insects have called it a season. The fish, however, continue to surface feed to terrestrials; the land-born insects comprising the ants, spiders, beetles and grasshoppers. In some of our Pennsylvania streams there may be relatively few fish left, but these are usually good fish which have avoided being taken. Since there are fewer fish, one's chances of coming upon them when they are rising to these insects are often remote. It then becomes necessary to induce them to rise with a tantalizing imitation, if one is to find sport. This is the forte of the *Spider*; an imitation that "brings up fish", if there ever was one, when rises are not in evidence.

Much has been written about "skating" the *Spider*. Edward R. Hewitt told of "jumping" many big fish on his Neversink, by skating the fly across the surface of the water on the tips of its hackle. Reasonably good-sized water is needed for this technique, however, and this procedure does not provide the same results in the smaller headwater streams. This writer prefers a dead float, relying on spotting the fish in open water and presenting the fly in the usual manner, allowing it to drift with the current, however slow. The trout seem to act in an unpredictable manner; sometimes smashing the fly, slapping at it or jumping clear over it. On occasion a very respectable trout will race toward the fly like a bullet from six or eight feet away, stop abruptly within an inch or two, and then daintily suck in the imitation.

This hot, midday fishing offers an excitement that is not encountered during the high water, springtime, aquatic hatches. This is true partly because many of the fish that are cast over are positioned in shallow water — often no more than a foot deep and less. The rise to the fly much of the time is more on a horizontal plane than vertical (as earlier in the season) and in many instances accounts for the explosion-type rise. The surface of the water seems to bulge at the take and the immediate after-play in shallow water can be fierce. Naturally, the fish's only recourse is to make a long run for cover.

Just how do you create the *Spider*? It is tied in many variations; with or without tail, with a variety of body

materials, including fur, quill and tinsel, and various hackle combinations. A favorite is on size 16 or 18 hook, 3X fine, with tail to help it float and cock upright on the water. A few ginger hackle barbles are tied in for the tail and two or three turns of gold tinsel for the body. A grizzly and a ginger hackle tip are then tied in, with the grizzly wrapped first. The best grade hackle obtainable should be used and wound on very sparsely. The diameter of the hackle of the finished fly is between the size of a quarter and a half dollar. A disadvantage in casting the fly is its wind resistance. Like the fan wing and spentwing fly it tends to twist the leader, especially 7X (.0041), but this can be eliminated by cutting back the tippet and by keeping the false casting to a minimum. An advantage of the fly is its ethereal qualities and the fact that it dries out quickly with a false cast or two.

The fly certainly is not new and I do not present it here as a cure-all for low, clear water. But not all of our stream banks are heavily inhabited with grasshoppers, for example, and the imitation ant is difficult to see, even if you are fortunate enough to come upon a fair number of rising fish in a day's fishing. It would be foolish to attempt to fish an ant "to the water", but not so the *Spider*.

My stream notes for the past few seasons indicate that the serious trout fisherman is missing some fine days astream if he thinks the latter half of the season is for golf or gardening, rather than the pursuit of his favorite sport. A tabulation of fish caught and released on the *Spider* during July and August of one year totals 46 but does not indicate the many more rises and fish seen during this same two-month period. The notes establish that a fair number of these fish were of twelve to fourteen inches in length, with particularly good catches on August 11th and 16th. This past latter half season was no exception and included two fine sixteen-inch brown trout. These are good fish for our small streams, considering they are taken on the dry fly, using short, light rods of six and six and one-half feet in length. Add to this the fact that the trout move upstream into the smaller, cooler headwaters in late season and one frequently finds himself in some pretty tight casting situations.

This late season fishing offers unhurried moments when one rarely finds another fisherman on the stream. I can only recommend that you sample some of the sport that is available in late season with the light rod, well conditioned fish . . . and the *Spider*.

Angler subscription rate increase becomes effective September 1, 1974

New or renewal subscriptions at the current rates:

one year - \$2.00 three years - \$5.00

must be postmarked not later than August 31, 1974.

Keystone Camping

by Thad Bukowski

If there is a "most picturesque" campground in the Allegheny National Forest, it has to be CHAPMAN DAM, just southwest of Clarendon, off U.S. Rt. 6, in Warren County.

Actually, CHAPMAN DAM is part of CHAPMAN STATE PARK, an 803 acre area, surrounded by the vast 467,000 acre Allegheny National and some State Game Lands.

The 68 acre lake, nestled among the surrounding hills is the focal point of the area. The lake harbors trout, as well as bass and other warm water fish, is open to rowboating and canoeing, and has a good-sized sandy beach for swimming on the west shore just below the camping area.

During the early trout season, fishermen crowd the shores of the lake and one of the hottest trout spots is the moving water just above the dam.

Over the past season, Chapman itself was stocked with 3,400 brookies and browns on April 10th, but many other areas nearby are also outstanding for trout angling. Farnsworth Creek, for instance, just outside the park area, is regularly stocked with fish from a Federal hatchery during the summer. A big sportsmen's trout cooperative nursery is also located in the area.

The west branch of the Tionesta is the water source for Chapman and the stream also gets its share of brookies. 1,800 were planted last March 28th, and another 800 on April 10th.

Other very important trout streams of the area include the main branch of the Tionesta, which gets over 22,000 per season, and the Big and Little Brokenstraw, which together had 17,300 stocked in two shots on March 21st and April 2nd. Many other trout streams course through the forest for the trout angler and most of these are hardly fished during the peak of the summer.

In addition, the lower Tionesta, downstream from Kelletville, is a big boat and muskie fishing area of almost seven miles length as part of the Tionesta Dam. Closer by, and less than 20 miles away, is the mammoth 27-mile long Kinzua Dam. Sightseeing is an important activity at the dam, particularly



Most of the activity in Chapman State Park is centered about 68 acre Chapman Dam, nestled in the hills of the Allegheny National Forest.

at mountain sites such as Jake's Rock and Rim Rock.

Boat rentals are available at the Wolf Run Marina at Kinzua, and a bait shop is located there also. Across the road from the Marina is an outstanding beach and picnic site.

At Clarendon, just a stone's throw away from Chapman campsite, one can rent canoes for a trip down the Allegheny River if he so desires. The outflow of Kinzua Dam has been revamped to accommodate such boaters at their entry point, with a road going to the water's edge. The trip down the river to nearby Warren is about 10 miles, but one can go

much farther if he has the inclination.

Chapman has 40 tent and trailer sites, and a boat rental concession, plus a snack bar near the swimming beach. Hiking trails provide added enjoyment for your stay during the summer and a small nature center with a variety of wildlife of the area represented is also part of the park scene. Ski and snowmobile trails course through the park for winter activity and winter trout fishing is also enjoyed on the lake.

Further information about the park is available by calling 814-723-5030 or by writing to Chapman State Park, RD 1, Clarendon, Pa., 16313.

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Brown trout, which most anglers agree are the hardest to catch on flies, do most of their feeding at dawn and in the evening. During the full daylight hours, they are inclined to hide for safety.

Final weeks of the trout fishing season are tough ones, but keep this fact in mind: Mayflies hatch during the entire season, and excellent imitations of various species of mayflies are the Quill Gordon, Hendrickson, and Light Cahill.

Steady, darting retrieves are not the only ways to fish with a streamer fly. Try moving it around in the water in little bursts of activity. Also, allow it to flutter down into such cover as rocks, stumps, and depressions in a stream or lake bottom.

Don't quit too early in a day spent in trout fishing. Wait for the evening rise, which can make a trout stream come alive with feeding fish. At dusk, use a bivisible dry fly, which will be easier to see on the water.

Bass and big trout that are chasing minnows in the shallows are excellent targets, since they are obviously on a spree of active feeding.

Flies that are drab in color are good bets when the water is low and clear. That is because, in crystal clear water, trout can-

not so easily detect the fraud in a drab-colored fly as they can in one of the more colorful patterns.

Low-hanging trees, bushes, and other vegetation along shorelines are fish cafeterias. Insects fall or hop off into the water. With a long line, light tackle, and a delicate hand, the skilled angler can make his flies imitate these delicacies.

Remember that most panfish feed a foot or so off the bottom. Bait that is held too high in the water will not bring consistent strikes.

Use a light wire hook, and a leader to match, at least 7-1/2 feet long, in fishing with grasshoppers. Toss the 'hopper lightly on the surface of the water and let it float naturally with the current.

Stumps and rocks not far under the surface of the water are an invitation to bass fishermen. bass or pike are likely to be hiding in the deeper water in the area, and a lure worked carefully over the sunken obstructions is very likely to attract their attention.

Keep that flashlight in your pocket while you are fishing at night. Its beam can put down fish over a wide expanse of water. Hooking and fighting a fish in darkness is one of the charms (or penalties) of night fishing.

Bright days and clear water call for jigs of light colors, even white. For dark days and murky water, black, brown, and dark orange are good colors.

Sunset is the witching hour of the day. The wind usually falls, and the water calms. There is no bright glare of light in the sky or on the water. Fading light seems to give the fish a sense of greater security, and they often begin feeding. That is why fishing from sunset into darkness is a good tactic.

Working a surface bassbug too fast will discourage strikes. A good rule is to cast the bug, let it lie motionless for a count of 15 or 20, then twitch it very gently. If there is no strike, retrieve the bug a few feet and repeat the light twitch. Continue this method until the lure has been retrieved all the way.

In fly fishing for bluegills, wet flies are preferred because these fish do most of their feeding beneath the surface of the water. Small streamers also are effective, and so is a fly and spinner combination. Brightly colored flies are best.

BOATER'S TIP — "Saddle Bag" Tool Kit!

If you've ever wanted to change a plug or replace a shear pin and found that you left the tools at home, you might want to look into one of these. They're made of gas and oil-resistant vinyl and should become a permanent part of your rig. You won't have to ask, "Where are the tools?" each time you get underway. If your favorite dealer doesn't have them in stock, he might be able to order one for you.



Ashore & Afloat

by Gene Winters

Beginning with this issue, Gene Winters joins us as a regular contributor. A native of Hershey, Pennsylvania, Gene is employed as chief announcer at Radio Station WLBR, Lebanon, where twice each week (Tuesday & Thursdays, at 6:35 p.m.) he presents an up-to-the-minute fishing program appropriately entitled: "Angling With Gene."

Active in the U.S. Coast Guard Auxiliary, Gene is presently Commander of Flotilla 53, Harrisburg. One of the Flotilla's teachers of the Auxiliary's 12-week Basic Boating Course, Gene specializes in: Aids to Navigation, Rules of the Road, Weather Reading, and Engine Operation & Maintenance. Gene's 14- and 21-footers have ferried him across some of the major waterways across the country and the bits of wisdom he has picked up from his experiences should provide Angler readers with much informative and enjoyable reading.

Sooner or later, you'll meet *him*! It may not be today, tomorrow, or even next year—but, sooner or later, you'll meet *him* face-to-face or **bow-to-bow**! You'll recognize *him* . . . you've seen *him* before. He's the one seated next to you at your favorite watering hole, almost knocking you off your stool twenty times during the downing of one twelve-ouncer! He's the plebeian who knifed into line against the traffic lined up at the gas pumps during the "shortage." And he's the live wire who will scare ten years off your life when you meet him on or around the water!

He's the same guy who hasn't learned to compensate for the fact that a boat has no brakes; the same character who still doesn't know where the pivot point is on his boat (or even what it is); and that a swinging stern can be a dangerous weapon. And how he loves to stake a claim of eminent domain to the courtesy dock, intended only for loading and unloading, while he goes ashore for a two-hour siesta!

You can't educate him; you can't even get him into a classroom. Heaven knows the Pennsylvania Fish Commission has extended numerous invitations to a **Safe Boating Course**—ditto the Coast Guard Auxiliary, Power Squadron, and Red Cross. You can't effectively legislate him—he's the same person who is still driving on your city streets with a suspended driver's license. You can't shame him, for he feels no pangs of conscience. To make matters worse, all his bad traits have had years to become ingrained into his nature since the day he first scooped up all the jacks and marbles from the smaller kids on the playground.

At best, you are down to two defenses against him; neither of which, unfortunately, is guaranteed to work, but it may be all you have going for you. Maybe, *just maybe*, you can bring him around by setting an example. A dash of common sense and a sprinkle of courtesy are often infectious. Capitalize on his unending need to be liked, to be accepted; his personality demands it.

Your second choice is to adopt the highway safety axiom of "driving defensively" by **boating defensively**! Give him an abundance of room on the water; keep him off your stern, away from your bow. In fact, isolate him as much as possible on the water. To him, **Rules of the Road** sounds like a new game from some toy manufacturer. Don't get behind him when he leaves the dock—the "rooster tail" and wake he leaves will engulf you! His throttle has only two positions: STOP and WIDE OPEN! And, for Heaven's sake, don't let your children near him at the launching ramp. He can manipulate that trailered rig to the water's edge blindfolded—and he might as well be. He's not a newcomer, you know, he's been boating for years. And that may be most of his trouble.

Those days of boating and fishing for hours on end without meeting another person are just about gone forever. The tremendous increase in boaters has created a whole new ball game with different rules, and those who don't follow the rules should be thrown out of the park. Recreational boating doesn't demand professional sailors, but it does insist on courtesy, common sense, and safe boating practices. Add some **boating education**, and you can put the game in your back pocket. But there is no more room for a "nut behind the wheel" of a power boat than one of Detroit's four-wheelers!

If you're going to set an example for him, it must start the moment you leave the driveway at home. Follow the rules of the road on the highways as well. Adapt and allow for the trailer and boat tagging behind you. Apply as many of the heavy truck operator's driving techniques as you know (the better ones, that is!). If you've got a heavy rig and traffic is piling up behind you, find a safe spot and pull over to let them by.

When you arrive at the water, have the youngsters don their PFDs (personal flotation devices) as soon as they alight from the car. It's not only common sense, but a moral, if not legal, obligation. Protect your offspring before they plant one foot on the dock, or playfully kick the first pebble into the water to become mesmerized by the expanding circle of ripples.

Trailer boating has opened wide new horizons, but brought with it problems of its own: parking problems, bottlenecks, and rush hours, compounded by the fact that the average car-boat-trailer combination takes the equivalent parking space of three average size autos. Courtesy in the parking lot can minimize frustration; prudence on the ramps brings its own rewards.

Set an example by taking care of all possible chores *before* you move to the ramp. Install the drain plug, remove all tie-downs except the winch line, remove the trailer lights (when possible) or disconnect the trailer wiring plug. Tilt the motor or raise the lower unit. Stow all gear properly and get boat hooks, paddles, and fenders "at the ready." Check navigation lights, blower,



"Move off the ramp so others may use it. The parking area, not the ramp, is the place to tie her down . . ."

bilge pump, etc., and secure at least a bow line to a forward cleat.

Backing down the ramp, proceed with reasonable speed; but *be deliberate and thoughtful*. Know what you are doing, and why. If possible, have someone guide you to make sure the course behind you is clear. After you roll her off, try to have a family member or friend park the car and trailer while you tend the boat. Engage the blower (if you have one), fire up the engine, glance at the instruments, check forward and reverse gears (at *idle* speed only) and move to the dock. If there's no loading dock, pull the boat away from the ramp so others can use it and beach the boat out of the way to wait for your passengers.

When you come back in, move briskly, but carefully, to get the car and trailer back to the ramp for retrieving. Remember, even in these days of "Women's Liberation," your wife or girl friend is probably still the one who'll get

waterlogged trying to hold that stern. Get it winched smartly on the trailer, tilt the motor and move off the ramp so others may use it. The parking area, *not the ramp*, is the place to tie her down for the road, remove the drain plug, stow the gear, reconnect the trailer lights, etc., Courtesy and consideration of others at the ramp is even more necessary at day's end. Everyone tries to get out at the same time, usually just before the last ray of sunshine flickers and goes out.

Don't stare, but glance over your shoulder. Notice that fellow you were destined to meet? Would you believe it, he's got his shoulder to the bow and helping that newcomer roll his boat off the trailer! Judging by the smile on his face, don't you get the feeling he's actually enjoying being on the same side of law and order for a change? *He might have picked it up from you* — while you were simply displaying **caution, courtesy, and common sense**.

" . . . your wife or girl friend is probably still the one who'll get waterlogged trying to hold that stern."



FISH TALES



Angler JOHN SCHEIB, of Harrisburg, holds the 20-1/2-inch, 5 pound small mouth bass caught in the Susquehanna River, York County, last March.



FRANK WOLF, of Allentown, was fishing the Delaware River, Northampton Co., last April when he caught his 26-3/4-inch, 7-3/4-pound Shad.



SCOTT ERVIN, 11, of Nazareth, caught two largemouth bass at Promised Land Lake, Pike Co. The 21-3/4-inch, 6-pound bass earned him a Citation.



Another young fisherman, CHRISTOPHER GROSS, 11, of York Haven, caught his 26-3/4-inch, 4-7/8-pound walleye in the Susquehanna River, York County.



JOHN SWINTON, of State College, shows the 25-1/2-inch, 4-pound chain pickerel taken from Stone Valley Lake, Huntingdon County, last February.



JAMES DAVIDSON, 11, of Bethlehem, shows his 18-inch, 2-pound brown trout caught on opening day fishing Monocacy Creek, Northampton County.



Just one week later, GEORGIE KAUP, 12, of Tyrone, caught this nice 22-1/2-inch, 3-1/2-pound brown trout from Blair County's Juniata River.



Little KAREN BRATTON, 5, of Millersburg, holds her large 26-1/2-inch, 10-pound carp taken from Wisconsin Creek in Dauphin County.



EDWIN TAYLOR, of Youngstown, Ohio, was fishing Shenango River, Mercer County, when he landed this 39-1/2-inch, 15-pound northern pike.



BILL WISEN, of Sharon, also caught a northern pike in the Shenango Dam, Mercer County. It measured 37-1/2-inches and weighed 11-1/2-pounds.

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LAND USE ETHIC



Conservation, in the final analysis, is the highest form of national thrift in preventing waste and despoilment while preserving and renewing the quality and usefulness of all of our resources.

Many of us were appalled at the defeat of the Land Use Bill in the U.S. Congress this past spring, and our hopes for similar protection in Pennsylvania waver when we see the difficulty in enacting even the most preliminary of such land use legislation in the form of flood plain management. A recently passed amendment to the Sewage Facilities Act has crippling provisions that encourage overexpansion.

True conservation is ultimately something in the mind and expresses an idea for men who cherish their past and believe in the future. In our continuing search for abundance, and beauty and order, we can manifest both our love for the land and our sense of responsibility toward future generations.

Most of us find it difficult to conceive a land use ethic for tomorrow. The farm-based American of a century ago, with undeveloped conservation insights, has been replaced by the asphalt American of today who is shortsighted in other ways. Perhaps our sense of stewardship is uncertain because too many of us lack roots in the soil and the respect for our resources that goes with such roots. Too many of us mistake creature comforts for the good life. Our economic standard of living has become the envy of the world, and yet our environmental standards have steadily declined.

I think that Aldo Leopold expressed it best in, *A Sand County Almanac*, “. . . we abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong we may begin to use it with love and respect.”

Ralph W. Abele,
Executive Director

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FRONT COVER: An acrobatic coho salmon displaying one of the species' traits. Photo: Jim Bashline

BACK COVER: Bob Anderson, an Erie coho regular, with his 10½ pounder!
Photo: Jerry Wunz

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James F. Yoder, Editor

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Fishing Outlook

by Stan Paulakovich

The Chinese calendar may say, this is "The Year of the Tiger," but according to our calendar, this is "The Year of The CHINOOK!"

Back in 1971, our first known chinook salmon was taken from Lake Erie's Walnut Creek. A fish that had wandered down from Michigan's waters, it was an omen of things to come. The fall of 1972 saw some of our original plantings return to our tributary streams. These were all immature males, "jack salmon," the term used for these precocious males. They averaged 23 inches and weighed 4- to 5-pounds.

In 1973 the first adult chinook made their way back to the streams from which they were stocked. These were from the brood year of 1969, when only 35,000 fingerlings were planted. Accompanying them were many precocious males from the 1970 brood year. The four year old chinooks averaged over 30 inches and weighed up to 18 pounds.

Now comes 1974, and scheduled to return, are the adults from an original planting of more than a quarter of a million fingerlings! Those that come in now, should be equal in size to those of last fall, but **there should be just about 10 times as many!**

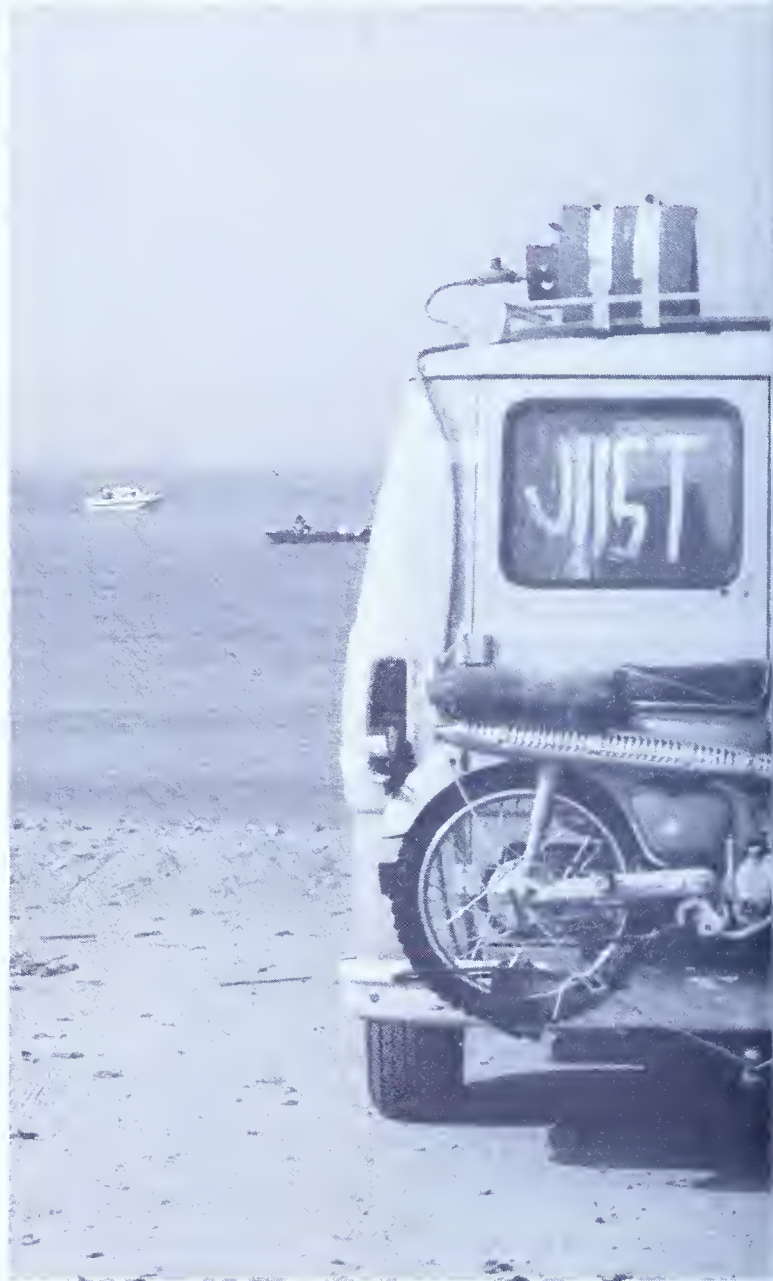
In addition, those chinooks that did not spawn in their fourth year of life, may return for their final performance this year. By now, they should be in the 25-pound class. How would you like to have a 25 pounder rolling fiercely and thrashing, trying to throw the hooks at the end of your line?

In this, their last year, the chinook have been feeding heavily and the abundance of food fishes in Lake Erie is fantastic. Several years ago, while on coho patrol, Capt. Howard Wilson, skipper of the Commission's research vessel the Perca, treated me to a demonstration of drag netting that was eye-opening.

Aboard were Biologist Jack Miller and mate Dan Wilson. We had just completed water quality samplings at the top, middle and bottom in the area known as the "Nine-Mile Trench." Heading back to shore, the nets were rigged and the planing devices on the nets were set to trawl at 9 fathoms or 54 feet. The nets were set out and the ten-minute drag began.

Metal tubs were set on the deck near the stern of the Perca and the nets were hauled in and emptied. Thousands of fish cascaded into the tubs; perch, smelt, white

Not even a honeymoon can interrupt salmon fishing!



bass, sheepshead, and 9 species of minnows comprised our take. The number or variety wasn't that startling, the size range of the fish was. They ran from tiny one-inch fry, to adult fish. A good representation of every year class of every species was also found. No wonder a fellow boils when someone says "*Lake Erie is dead*"!

As summer begins to wane, Lake Erie begins to cool off. As it nears the 55 degree mark, the salmon slowly make their way toward our shores and their date with destiny. Because of the swelling mass of eggs or milt within them, they feed lightly or not at all. They will strike in anger, fear, curiosity, or from instinct.

If last year can be used as an indicator, the chinook will be offshore around the second or third week in September. Their smaller cousins, the coho, will arrive about the third or fourth week of the month. Peak periods for each, will be that two week span after the time of their arrival.

How are you supposed to catch these giants? I don't know! Only one thing is certain: they are hard to hook and even harder to hold. Their strike is savage and their initial run is like the takeoff of a jet plane! They have

... especially when you know there are more chinook out there like Clifford Norman's 33-3/4"-17.7 pounder!



been known to mash treble hooks flat, snap rods and lines like matchsticks, and even straighten out the connecting rings on the hooks! Thinking chinook? Think **HEAVY!**

Contrary to what you may think, the mouths of chinooks are fairly hard. It takes some muscle in your rod to set the hooks in behind the barb. There's no doubt that you can land a salmon on 6- or 8-pound test line, but you will lose more than you land. Start with something around 12 pound test. The technology of today has made that size line much smaller in diameter and fairly invisible to the fish.

Best lures last year were wobblers in fluorescent orange or blue. Number 3, 4, or 5 spinners, with the feathered treble hook trailing behind, were also pretty effective. An inventive angler last year discovered that luminescent lures worked wonders. The lure was held in front of the headlights of the car for a few minutes. When used, they glowed in the water for quite a long time. Best time for this method was from 5:00 a.m. until sunrise.

Most of the chinooks taken last year were from Elk and Walnut Creeks or at the mouths of these two streams

and near the mouths of Trout Run, Godfrey Run, and Crooked Creek. Elk and Walnut are larger streams and a portion of these two are open to shoreline fishing.

Trolling several hundred yards offshore with spoons, wobblers, lures, and spinners is best the first few hours of daylight and the last few hours in the evening. Slowly drifting with salmon egg clusters on treble hooks seemed to work well for the chinook. It's also a great way to pick up some of the lake run rainbows for which Lake Erie is becoming noted.

We tried fly fishing with large wet flies and streamers last year, fishing to the rises of porpoising salmon. Whatever the reason for this surface action, it produced no luck for us at all. We couldn't get one strike. This year we will try larger and more colorful streamers, like the Mickey Finn; maybe this will attract them.

Both the chinook and the coho are delicious eating. They are big enough to filet and are great broiled or fried. Or, the whole fish can be baked for a perfect meal. If you have the facilities, smoked salmon is out of this world. So the pleasure of fishing for them, and the thrill of catching one, is topped off with a table treat that is second to none.



NEED SPECIFIC INFORMATION?

Check the directory on the inside of our back cover; bureau, division, and section titles are self-explanatory, and inquiries directed to these offices will be handled more expeditiously.

Many inquiries are directed to the editor's attention, resulting in a delay until it can be channeled to the department most qualified to supply the information.

"Letters to the editor," regarding the magazine, its content or distribution, are always welcomed. We especially invite our readers to share their fishing and boating experiences, both good and bad, with other readers.

Your district waterways patrolman is best qualified to handle matters of purely local concern. His name, address, and telephone number are listed in both your summaries of Fishing Regulations & Laws and Pleasure Boating Requirements.

FORMER KEYSTONER

With this, my sixth 3-year renewal subscription to the Pennsylvania Angler, I felt a few words of encouragement to your contributors and MEMBERS OF THE COMMISSION would be apropos. As you can see by the address below, I am no longer a resident of the "Keystone State", but my thoughts often return to the fine times I enjoyed in fishing numerous lakes, streams, rivers and reservoirs from the age of five years, until my 56th year, when I retired to my Florida residence. Whether in my waders, bank fishing, or fishing from my boat, I always enjoyed the beauty of my surroundings—regardless of my luck with rod and reel.

From the receipt of my first copy of the *Angler* I avidly read each issue from cover to cover. The articles on your propagation work and other efforts to improve and broaden the fishing opportunities throughout the state were

both educational and rewarding to me. I would be remiss if I did not mention the dedication and friendliness of the waterways patrolmen that I talked with during my fishing expeditions to various areas of the state. Each was a gentleman, only too happy to aid my friends and me in answering our questions and giving advice to assure our fishing and boating pleasures.

I'm sorry that my "adopted" state does not have a publication to equal the *Angler*. By "word-of-mouth" I am beginning to become acquainted with fresh water fishing areas within my surrounding area of the state.

In closing, I wish to extend my best wishes for the continued successful efforts of the *Angler* in promoting interest in fishing and boating with many thanks for the hours of enjoyment received in reading your magazine.

JOSEPH T. SAVIN
Lake Worth, Florida

A lot of us here have just cancelled our Florida vacation plans, Mr. Savin! Ed.

TOO BAD!

I went fishing on May 18, 1974 at Riverside Park in Oakmont at six o'clock in the morning. I put a nightcrawler on and cast out. About two minutes later I landed a largemouth bass. My friend watched him until I ran home and got a camera. My dad came down and we took a few pictures and measured him. He was 20 inches long, but being that it was not in season, I turned it loose. After a while I thought about a citation. So I called Mr. Crayton and asked him. He said for a citation it would have to be in season. Maybe my time will come again to be so lucky to catch another big one *in season*.

ROBERT MEDVED
Oakmont

Too bad, Robert, but catching a 20" largemouth should be a thrill to anyone - especially at Oakmont! Ed.

A FISH STORY

It was apparent he was an inexperienced fisherman, though he tried to appear otherwise. The others on the boat acted as though they couldn't see through him. When he eyed the bait with disdain, his companion wordlessly baited his hook. Once the line was in the water, the bait touching bottom, he began to relax. The pole lay silent in his hands. Suddenly, it bent and the line went taut, he had a bite! Carefully, he began to bring the line in. The silvery body broke surface, thrashing wildly, then it lay on the deck at his feet. It was a beauty!

Proudly, he held the fish aloft, posing for a photograph. The thrill of the catch had seized him; it showed in his eyes. Next fish would be even larger. Expectantly, he turned to his companion, "Daddy, will you please bait my hook again?"

BETSEY KOLZOW
Far Rockaway, N. Y.

CORN HARMFUL?

I would appreciate it if you would, in print, settle a dispute regarding trout and corn. There has been much controversy regarding this subject and I am sure other sportsmen would appreciate knowing the truth. My friend said corn is harmful to trout as they cannot digest it; I say that it is harmless to trout as I believe the Commission would prohibit its use. Who is right?

JOSEPH H. MAHMDE
Ringtown, Pa.

While I am not an expert on nutrition, I rather suspect that corn would be relatively harmless to trout. Certainly whole kernel corn, if not properly chewed, can be somewhat difficult for humans to digest — because of the tough outside coating. However, in considering corn and trout, I doubt that trout in a stream would ever eat enough to harm them, even if it were harmful.

Some of the insects which trout often eat have harder and tougher exoskeletons than the coating of corn. For example, it is quite common to find caddis larvae, including their stone or wood cases, in a trout's gullet. Crayfish and other hard-shelled aquatic life are often eaten as well. So, again, I can see no reason why corn would pose a problem to trout.

Robert B. Hesser, Chief
Fisheries Management Section

WHAT ABOUT GRUBS?

My friend and I fished Beach Lake, Beach Lake Township, Wayne County - outside of Honesdale, Pa., and caught quite a few perch and bluegills. But all of them had grubs or some type of orange worms throughout the whole fish. Could you please give me some information about this and what causes this problem? We drove over 50 miles for good fishing; but what good is the fishing if the fish are not? Thank you for your time.

DANIEL J. BRYNDZA
Moscow

Without actually examining these parasites I cannot tell you exactly what they are, but I can guess that they belong to one of two groups: (1) flukes and flatworms, or, (2) roundworms. As species from both groups can be found in the flesh

and internal organs of fish, these types of parasites are very common throughout Pennsylvania, and as fishing pressure increases, people are noticing more and more of these parasites.

The parasite in the fish is usually only an intermediate stage in its life cycle development, while a fish-eating bird is usually the final host in the life cycle.

Very rarely do the parasites cause death to the fish, and in no way can man become infected by them. They constitute no more danger to man than finding a worm in an apple. Thorough cooking will destroy the parasites, but if this does not appeal to you I would suggest just cutting out the parasites so as not to waste some good fish flesh by throwing the whole thing away.

I would be most interested to obtain the fish you mentioned with these parasites to examine first hand and identify the particular parasite species. I hope that this will be of some consolation to you and please don't let this discourage your fishing or the enjoyment of eating your catch.

Cecil R. Houser
Diagnostic Pathology

COMMON? IT DEPENDS!

I am writing about two true happenings that I saw. The first incident took place while I was trout fishing at Backlog Creek. I was fishing and I saw a sucker jump not once or twice but three times! Is this common?

The second incident took place when I was riding along in the car, I glanced in the stream and was amazed to see a mallard with a very large brown trout in its mouth.

ALLAN D. QUEAR
Pitcairn

Although not too many folks have seen a sucker jump (now watch the letters pour in!), we'll grant you this one. But a mallard with a trout in its mouth? I've never seen one, but then I carry only coffee along. I have this friend who sees snakes — now lots of people see snakes while fishing — but he sees them in his bedroom!

Ed.

ANY WAY?

Is there any way to get a fishing citation without taking the fish to a license agent? I don't keep any of the fish I catch. I fish for fun.

MATTHEW A. KICINSKI
Philadelphia

No way, Matthew! But, "fishing-for-fun," as you're doing, is generally a reward in itself. If you want an Angler Citation, you'll have to start keeping some of the big ones!

Ed.

CARP AREN'T PICKY!

As for carp on Mepps, I sometimes catch them on brown rooster tails, fished slow, near the bottom. Yours for good fishing in clean waters.

CHARLES F. RICHMOND
Washington

REALLY?

I have been fishing in the state since I was seven years old and still go several times a year for trout, then pickerel, then bass and panfish. I have had some trophy brook trout (wild) 5½-pound; brown trout, 9½-pound; and largemouth bass, 9½-pound; but I always seem to lose the trophy pickerel. The largest I have had was 29 inches long but I have missed some that went over three feet! I enjoy quite a few of the articles in the Angler and also pick up some new tips once in awhile.

F. W. KOFINK, JR.
Clifton Heights

Mr. Kofink, if you ever hold on to one of those pickerel "over three feet," you'll break the state record, so take along a camera and your local waterways patrolman! (We'd also like to have the catch verified by a minister, priest, or rabbi of your choice!)

Ed.

BEGINNER'S LUCK? HARDLY!

I especially enjoy your sections on *fly tying* and *Angler's Notebook*. I would like to commend the PENNSYLVANIA FISH COMMISSION on their efforts which produced that fantastic FISH-FOR-FUN project, "Fisherman's Paradise".

During a recent trip to Pennsylvania, on my first trout fishing trip, I hooked and landed at the Paradise, a 31" brown trout on a white maribou streamer that I tied. That was a thrill I will never forget. I also fished several other streams in the company of my friend, "Woody Rough," and 3 other friends, and we all had a very enjoyable and memorable trip. I can guarantee you, I will be back.

STEVEN SCHNEIDER
Annapolis, Md.

Then you agree, Steven, that the "Paradise" was correctly named?

Ed.

ELATED!

Wonderful! We can now wade in the Fish-For-Fun project on Kettle Creek. More wonderful, we have a Fish Commission that Listens. Thanks a million!

SAMUEL C. RICHARDS
DuBois

THAT'S THE SPIRIT!

My husband, son, and daughter are fishermen — so, I became a fisherman! Last year my husband started getting the *Pennsylvania Angler* and I learned many things from reading it. I can now fix my own rod and reel, bait my own hook. I can also take off my own fish from the hook.

Last week our family went to the Susquehanna River fishing. I caught 15 channel catfish. MR. RAYMOND TOMCZAK of Linesville asked (in *Leaky Boots*) what kind of bait to use for channel catfish. Well, we used nightcrawlers; maybe I was just lucky. I did not keep the catfish because we do not like to eat them. Thank you for the *Angler*, I not only learned how to be a good fisherman but a good sportsman. I only keep what we will eat.

There are so many beautiful places to see and fish in Pennsylvania. I now get out more and have a wonderful time. So, come on ladies, get those rods out and see what a good time you can have as a family. No more sitting home alone for me!

MRS. DORIS PLASKA
Woodlyn

ENJOYS IT ALL—

Enclosed is my check for renewal of my *Angler* subscription and also for a gift subscription for Clyde Keech. Clyde is without a doubt the best trout fisherman I know. He has taught me most of what I know about trout fishing and perhaps, more importantly, has introduced me to the *Sinnemahoning Country*. I have yet to find a more beautiful stream than the Driftwood Branch and especially that area known locally as "Tunnel Hill."

Please extend my thanks to the Commission for maintaining high quality fishing in Pennsylvania and for providing a publication of equal quality.

JACK HAVELY, JR.
Pittsburgh

The Commission will accept those thanks, Jack!

Ed.

WADER REPAIRS—

In your June issue I read "Problems with Waders". Tell your writer to try bathtub sealer, it's *live rubber*. First, clean area well, then force a small amount through hole, also a small amount on outside, let dry overnight. Then, apply a heavy coat on the outside. The small amount inside forms a seal which really holds.

BURTON WOODS
Deputy Waterways Patrolman

Taking A Closer Look

by Tom Fegely

Pennsylvania's Poisonous Snakes

Much of the reason that snakes evoke fear and inspire fantasy can be attributed to the relatively few species that are potentially dangerous, the poisonous ones. Of the 22 kinds of snakes found in Pennsylvania only three are poisonous. Not as common as the harmless ones, but by no means *rare*, is the trio of "pit vipers" that dwell within our state's borders.

The NORTHERN COPPERHEAD, TIMBER RATTLESNAKE, and EASTERN MASSASAUGA are "pit vipers" — so called because of the deep pit located between the nostril and eye on each side of the head. Each pit is actually composed of two cavities, separated by a thin membrane. The membrane has an extensive nerve supply that enables the snake to sense temperatures only a degree or two different than that of its immediate environment.

Although their sensory range is limited to about a foot, the pits enable the snake to accurately strike a warm-blooded animal in total darkness. Combined with specialized fangs and powerful venom, rattlers and copperheads possess the most sophisticated hunting weapons present in reptiles.

The hollow, hypodermic-like fangs are not permanent structures, but are shed and replaced throughout a snake's lifetime. New ones are constantly forming in the upper jaws as replacements for those that break off or are left sticking in some unfortunate victim. Each fang is connected to a pair of poison glands located behind the eyes. When the snake strikes, the fangs are brought forward and venom is forced through them and into the wound. When not in use, the fangs fold back against the roof of the mouth.

Poisonous snakes are not affected by their own venom and therefore do not use it on each other. In observations of captive rattlesnakes striking themselves by accident, the venom had no effect on the snake's activities. Other species of snakes, however, are not immune to the poison and in some cases, especially by copperheads, are killed and devoured.

Each summer numerous snakes are needlessly slaughtered because they are thought to be poisonous. Milk snakes and water snakes especially, are frequently mistaken for the copperhead and consequently stoned or clubbed to death.

Besides the pit and the possible presence of a rattle,

there are ways to determine whether or not a snake is poisonous. One method is by observing the eye pupils. Venomous species have "cat eyes" (elliptical pupils) while non-venomous snakes have round pupils. The triangular head of a rattler or copperhead is also an identifying feature but not necessarily a reliable one. Unless both types of snakes are present for comparison, most people will interpret any snake's head as being "triangular".

It is safe to assume that a snake is harmless if it has lengthwise stripes or uniform solid coloration (this is not necessarily true for snakes found outside of Pennsylvania). Copperheads and rattlers both have cross-barred or splotted patterns.

One other distinguishing feature requires the capture and handling of the snake and is therefore of limited usefulness. A dead snake (or even a shed skin), however, can be examined to determine its status. If the scales on the underside of the tail are divided it is (or was) non-poisonous. If undivided, a poisonous species is indicated.

Only three species of venomous snakes live in Pennsylvania and all three are distinct and interesting enough that every biology course should require their identification. The northern copperhead, timber rattlesnake, and eastern massasauga (also a rattler) all have the family characteristics previously described, yet look and behave in different ways. **The water moccasin or, "cottonmouth," is not found in this state** although its name is frequently used in reference to the common water snake.

Copperheads frequent rocky fields and hillsides and hide in brush piles, overgrown fencerows and under rocks and loose debris. Recorded from 54 of Pennsylvania's 67 counties, the copperhead is seldom seen due to its nocturnal activities. Known in some regions as the "highland moccasin", *Ancistrodon contortrix* is distinguished by the hazel-brown coloration (thought by some to resemble the contrast between a new and old copper penny) of the hourglass markings on its back.

Normally content to lie motionless or make a dignified retreat, a copperhead will become aggressive when cornered or teased. Its venom is not as potent as that of a rattlesnake and seldom is it fatal but it will cause a human victim to undergo a period of pain and suffering.

Copperheads bear their young alive, producing four to nine young in August or September. The youngsters are marked like their parents except for the tip of the tail which is bright yellow. It is thought that the colorful tail is used as "bait" to entice an insect or small frog. In about a year or so the yellow disappears and the snake's diet changes to mice, frogs, small birds and even other snakes.

The timber rattler, *Crotalus horridus*, is most common in the sparsely settled mountainous regions although it has been recorded from 46 counties. When summer's heat reaches its peak, rattlers often descend into valleys for food and water. There they may be encountered by warm weather anglers and campers. In the fall they again return to the rocky ledges where they "den up" for the winter.

Females bear seven to twelve young in September. The newborn rattlers come equipped with fangs and poison glands and, if discovered, should be treated with respect.

The elliptical pupils and the large heat-sensitive pits of this copperhead, right, readily identify it as being poisonous. The front opening is a nostril. The average length of the northern copperhead is about thirty inches, although some individuals reach greater lengths.



This yellow-phase timber rattler still possesses a full set of segments on its tail, left. A black phase also occurs in this species and they are often mistakenly identified as two separate species, because of their different coloration. Snakes are secretive by nature, and it's up to man to avoid their domain.

One common misconception concerns the determination of a rattlesnake's age by counting its tail segments — the individual horny sections making up the rattle. Each time a rattler sheds its skin, which might be several times a year, it adds a new segment. As old segments break off and new ones are added, a rattler's tail may possess anywhere from one or two to a dozen or more sections.

A third species of venomous snake has been recorded only in Allegheny, Butler, Crawford, Lawrence and Venango Counties. THE EASTERN MASSASAUGA® *Sistrurus catenatus*, also possesses rattles and grows to about three feet in length. This relatively rare viper can be distinguished from the timber rattler by the gray-brown colors of its skin, squarish spots on its back and large plate-like scales on its head.

Partial to swamps, bogs, and prairie-like regions, the name "swamp rattler" is often used when referring to the massasauga.

The incidence of snakebite in Pennsylvania is low. Of the few recorded cases each year, many are the result of handling captive snakes which are kept as pets or used under laboratory conditions.

A snakebite kit may come in handy when in the deep

woods but the best advice for anyone bitten by a snake thought to be poisonous is to get to a hospital. Wyeth Laboratories of Philadelphia manufactures an antivenin to neutralize the effects of rattlesnake and copperhead venoms. This is available in most hospitals.

Various "snake hunts" take place in Pennsylvania each year and attract huge crowds. Unfortunately most seem to be more sensational than educational and the final result is a decrease in the numbers of snakes in a particular region. Unless the area has had a tremendous influx of homes, the natural balance may be unnecessarily upset. Since predator-prey relations tend to adjust themselves according to living space, removing large numbers of rattlers year after year can be of questionable benefit.

To assume that a snake is "extremely dangerous" simply because it possesses a weapon (venom) to better enable it to survive is foolhardy.

Colonial flags carried a picture of a rattlesnake beneath the words "Don't Tread On Me". Rather than needlessly slaughtering harmless and venomous snakes, perhaps we should strive to apply this same philosophy whenever we cross paths with one of these misunderstood reptiles.



Old-timer, above, enjoying shore fishing during one of Lake Erie's more pleasant moods. Author's salmon, left, won't break any records, but he's hooked on salmon fishing forever!



Let's go salmon fishing!

Coho & Chinook

will soon be returning.

by Sam Hossler



Rough weather can cancel all boat fishing on Lake Erie. For a report of lake conditions, call 814-838-3424.

The moody, mysterious waters of Lake Erie have been providing some of the best fishing found anywhere to a growing band of fishermen addicted to the pursuit and capture of coho and chinook salmon. Back in 1968, 85,500 coho smolts were released into selected tributaries of Lake Erie to start one of the most exciting fishing programs ever undertaken in Pennsylvania. This program has been nursed along by the Pennsylvania Fish Commission and has grown into one of the finest fisheries in this part of the country. The coho have been returning to spawn each fall since that time. Then, in 1972, the first chinook or king salmon made their initial spawning run back to the tributaries where they were planted the year before. They originated from the 35,000 smolts planted in April of 1971.

Coho normally return to their birth place at the age of 2 or 3 years, giving the angler what had been (and still is!) considered really great fishing. But now, the chinooks, which return at the age of 4, 5 or 6 years after spending their growing years in the deeper waters, are heading for the tributaries where their life cycle began. 1973 was the first year to have any mature 4-year-olds return and, naturally, these tackle busters who had an extra year to feed, outweighed the coho considerably and have now become the talk of the sport fishing fleet found off the Erie shore in any one of a number of hot spots.

Salmon smolt raised in nurseries along the tributaries are started on their migration into the big lake each spring to reach adulthood over the ensuing years. A part of the nursery system are the "imprinting" ponds which, for some unexplained reason, give the salmon a homing instinct when the spawning urge beckons.

I had been to Erie a number of times trying my luck

but each trip ended in failure as rain, wind, or both, closed in on my arrival. It was with mixed emotions that I started up I-79 for a 1973 attempt, remembering vividly how last year I was greeted by the roar of waves crashing against stone and sand in the still dark morning at the Walnut Creek Station. This made it impossible to launch a boat and do any lake fishing at all. We then headed down to Elk Creek where it is permissible to fish a short distance of the creek bank from the mouth to the wired-off area. Walnut Creek also has a portion of creek bank plus a jetty where shore fishing is possible during inclement weather. '72 was a complete disaster! Heavy rains the day before our arrival and continuing high winds put all the fishermen on the banks and jetties. After a few casts into Elk Creek I was content to walk the shoreline talking with fishermen and enjoying the fresh air.

This year, the weather report which I received from the "Coho Hot Line" was a little more promising. As I pulled into the Walnut Creek Station parking lot, my spirits were immediately lifted. The water was relatively calm and fishermen were carrying stringers of coho and chinook from almost every boat. On my way over to the weighing station, I saw an excited angler on the jetty hook and land a salmon. That did it!

I was to meet my fishing partners here and it didn't take me long to scout them up. It was 6:00 p.m. before we were on the water and headed for the mouth of Trout Run. Weaving through the maze of boats gathered at the entrance to Walnut Creek, I watched another salmon being boated. Surely this was going to be my day!

Another armada of fishing boats was working the water off Trout Run when we arrived and it seemed



Aerial view of Walnut Creek mouth shows a portion of the "Salmon Armada." Photo; Bus Scott, Erie Times.

everyone of them had stringers over the side. As we wound our way through, trolling spoons, spinners and plugs, there was an almost carnival-like atmosphere in the air. It was crowded, but good humor prevailed and everyone had a cheerful wave or smile as you passed. Just before dusk a 12 foot jonboat, anchored less than 200 yards off shore, showed some activity. The fisherman in it was alone and from the way his rod was jumping there was no mistake that he had tied into something large enough to make the adrenalin flow rapidly. Handling the rod in one hand, and the net in the other, it was touch-and-go for a while whether the *fish* would tire before the *fisherman*! Finally, after two unsuccessful swipes with the net, he had him. **A beautiful chinook!** Yelling over, we asked, "How big?" This angler was good enough to oblige by putting the tape on him, then calling out "**31 inches**"! We still hadn't caught our first fish although I had felt a light bump which I prefer to imagine was a strike. The fish were there, and if the weather held, tomorrow might be our day.

Before going to supper that night a trip to the local tackle shop was in order. Each of us had more lures than we could ever use in a year, but there is always something that can be added. I didn't go as far overboard as my partners, but I couldn't resist putting a few "local killers"

in my tackle box. The favorite lures of the area are spoons and spinners, with fluorescent orange being the preferred color. Mepps spinners, with a dark hair dressing, were doing extremely well that day as was the Rooster Tail and K.O. Wobbler. It seems to be the feeling of the fishermen who know, that if it's flashy and pulled past the salmon's nose he'll hit it . . . if the mood prevails. They also tell me they will *raise* for a lure, but will not *dive* for one. I had some lures with me in every color imaginable and was convinced these would take salmon just as they had taken trout over in the Pocono lakes.

The weather turned cool that night and light rain fell. When we rolled out of the sack in the morning the rain had stopped but a southwest wind was blowing. It is hard to tell when you are inland how the lake might be reacting to the breeze, so it was with some misgiving that we drove back to the Walnut Creek Station. When we saw the water, we all breathed a sigh of relief! A slight chop was on the surface, but not enough to keep us off the water. Although the traffic of boat trailers seemed to stretch for miles, it was only a short while later that we were on our way to Godfrey Run, where we had heard they were really hitting.

As we trolled, the water calmed to a point where



Above: Lone angler photographed doing battle with a giant chinook salmon at Erie.

Below: Many are lost because fishing tackle was too light, or net was too small!



Aerial photo above shows Fish Commission Access Area parking lot, fishing pier, and stone jetty.

Why fight the wind, waves and water when you can enjoy salmon fishing from a comfortable chair?



hardly a ripple was visible. I started with a blue and gold spoon while my boat partner was trolling a large fluorescent orange wobbler. Again we saw a number of salmon being caught around us, but the best we could come up with was a couple of "bumps" each. From Godfrey we went on to Trout Run and drew another blank. It was lunch time and with no fishing activity, our stomachs soon told us it was time to head in.

The other boat in our party came in at the same time and unfortunately they had experienced the same luck we had. After a short drive and a quick lunch we were back ready to hit 'em again!

Back at Trout Run we made our way slowly through the small armada (trying not to appear overly jealous when we saw stringers over the side of our fellow fishermen's boats). There were three of us in our boat now. We tried everything from salmon flies to bass plugs, but nothing seemed to tempt those fickle salmon. The activity around us had slowed down somewhat and it was 6:00 p.m. when the decision was made to take one last pass before calling it a day.

No sooner had we started the sweep than my rod gave the heart stopping "thump-thump-thump" and the rod tip began dancing. Finally a fish had struck the silver and blue striped wobbling spoon I had put on.

I started yelling for somebody to get the net, but they

all scrambled for their *cameras* instead! This finny fellow didn't take to the air, but dove down, boring for the bottom. Still calling for the net, all I could hear were camera shutters clicking! The fish didn't seem to appreciate being a model for photography, and dove under the boat sending my blood pressure up another 10 points. We got that worked out and finally had him thrashing beside the boat for a few last pictures. At last the net was slipped under him and he was hoisted aboard.

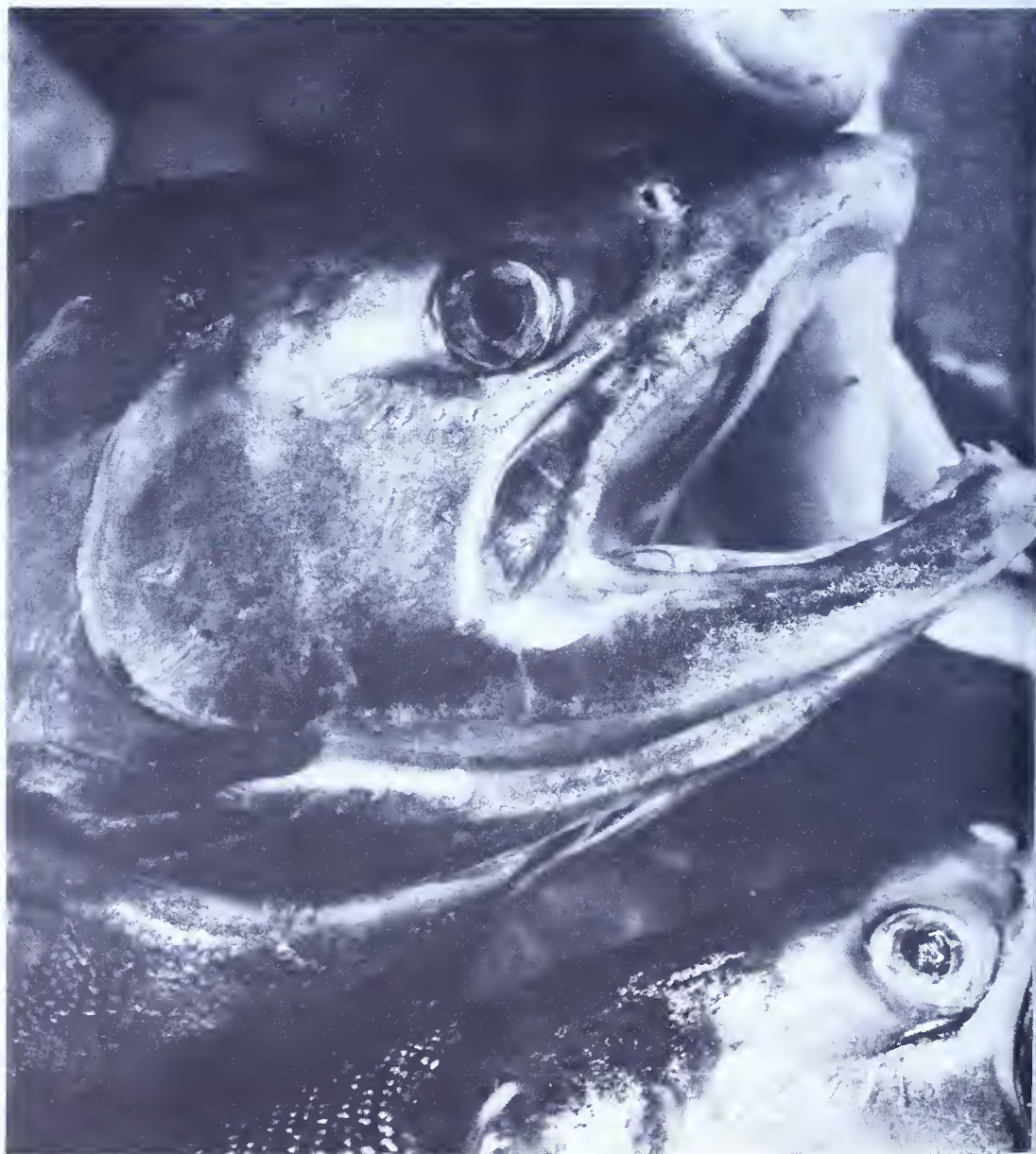
The reason this fellow didn't jump was supposed to be the fact that he was hooked in the lower jaw. It is claimed that this is absolutely true of Atlantic salmon when hooked in the upper jaw — they'll jump every time, but a hook in the lower jaw means a deep diving fish.

My prize was a chinook, and not an oversized one at that. He was 22-inches long, but he made my day complete. The rest of the fishing party was no longer ready to give up, so we spent another hour trying for "number two."

However, at dusk we gave up, content to have taken one of the gamest fish found anywhere and I can attest to the fact they are not one of the finest tasting fish anywhere.

If you have never made the journey to Erie for salmon you really owe yourself a treat. You can bet *I'll go back* looking for that 36 incher that I know has my name on it.

The mouth of the chinook is hard — and sharp, strong hooks are required to insure a catch. They begin their spawning runs a month or more before the coho.





Above: Waterways Patrolman Norm Ely records Jean Smith's beautiful 29-inch, 9 3/4 pound chinook. Walnut Creek foreman, Neil Shea, above right, holds a chinook picked up by the Fish Commission's research vessel, Perca. Unidentified anglers, right, and below, display some good salmon catches from Lake Erie.





Fishing from the stoplog bridge requires heavier fishing tackle, above, and to bring up a heavy catch, like the walleye, right, take along a "drop net."

Something for Everyone by George E. Dolnack, Jr. photos by the author

Mark Twain once said, "There is no use in your walking five miles to fish when you can depend on being just as successful near home."

What he could have meant was that while a lot of anglers go chasing off out of state in search of a fisherman's paradise, others are having a ball with some top-notch angling darn near in their own back yards. And, I suspect that with the present fuel crisis, many more anglers will try to discover some satisfactory fishing closer to their homes.

Now I'm not knocking long trips or out of state fishing, I do it myself when time and resources permit. Heck, everyone needs a change now and then and the angler should gain some good from the experience, no matter how it turns out.

Next time you get the wanderlust and you're short of time, finances, or gasoline, take Mark Twain's advice and fish the lower Susquehanna where nearly all species of fresh water fish may be found. Here you'll find one species or the other in season year 'round.

One popular spot on the lower "Susque" is the Safe Harbor hydroelectric facility near Conestoga. Located on the east shore of "*the long crooked river*," it is easily accessible and offers something for everyone.

Several types of fishing are available at this plant whose facilities are open to the public from dawn to dusk throughout the year. In addition to the fishing, there's a picnic area, a playground, an arboretum to aid the budding naturalist in identifying trees and shrubs native to southeast Pennsylvania and free parking. There's also a

small but well stocked bait and tackle shop in nearby Conestoga.

The rock-lined bank of the river below the dam provides some excellent smallmouth bass fishing. Minnows, spinners, and jigs are used effectively with the minnow taking most of the bass. If you place your minnow pail in the water here, be sure to secure it well because the current is very swift when the water rushes out of the gates as power is being generated.

I saw one angler take a cold bath when he stumbled over the rocks and slipped into the water while in hot pursuit of his errant bucket full of minnows! He finally managed to snag and retrieve it with the stick he tripped over during the chase!

If you're looking for carp, there are a couple of hotspots you'll want to try. Just up from the confluence of Conestoga Creek and the "Susque" there is a sandbar where anglers congregate to test wits with this scaly monster.

Along the bank below the guard house is another good spot to try for this imported battler. A favorite doughball concoction used consists of cornmeal colored and flavored with a variety of gelatins, particularly strawberry flavor.

Other anglers prefer the stoplog bridge which runs parallel with the downstream side of the dam and is a lot like a coastal fishing pier. Safety railings run the entire length of the bridge on both sides and also at the end of this sturdy cement structure.

During warm sunny days, it's not uncommon to find

Tom Coyle's doughball netted him a 28" carp, left, while Henry Ford settled for a nice mess of catfish, right.



fishermen sprawled out in lawn chairs, basking in the sun, or reading a book if the action is slow.

A canopy-covered eating area, equipped with vending machines and picnic tables, is located at the entrance.

The stoplog bridge can be fished on either the river side or the dam side. And, since its deck is about 15 feet above the water, a drop net or umbrella minnow net is almost a must to get the large fish up. Even smaller ones will give you trouble at times so a sturdy rod and at least 12 pound test line is recommended unless you're after walleyes.

Fishing from the stoplog bridge for walleyes, or "Susquehanna Salmon", as they are known locally, requires some heavy tackle. A short, stiff, saltwater rod, with a star drag reel backed with about 50 pound test line is used by most although some anglers use surf casters with a spinning reel.

The walleye rig, which deserves special mention, consists of a 2-inch sinking Rapala or Rebel with the rear treble hook removed and replaced with a number 6 treble hook. At 3- to 4-foot leader runs from the lure to a three way swivel. An 8-ounce bank sinker is also secured to the swivel with a connecting link or duolock snap and the line fastens to the remaining swivel eye.

This rig is deployed about 200 feet downstream in the "boils," as the turbulence caused by the water rushing through the gates is called. Close attention to the line is required so that it does not become tangled with another angler's while tempting the walleyes. The fishermen are constantly moving in and out and around each other to avoid entanglement.

Some anglers launch their boats at a downstream access area and enjoy good fishing below the stoplog bridge, both in the current and around the huge round rocks that poke out of the water.

A word of caution here; boat handling can be tricky in the treacherous boils and can invite disaster to the careless boater!

One lone angler was observed drifting helplessly downstream while attempting to start his contrary outboard. It was a cliff hanger, and just before he was about to slam into a protruding rock, the motor started and he escaped tragedy at the last moment.

Well, there you have it. Good fishing, a picnic area, arboretum, playground, parking, nearby bait shop, no tolls and no fees. It's not only fun for the fishermen but for the family as well.

Fishing below the dam from boats is tricky, but anglers knowing what to do enjoy great fishing success here.





Al Schwartz, of Philadelphia, and his catch.



An arching stone bridge, a placid pool with a riffle below . . .

*for inner city fishing
in a wilderness setting*

WISSAHICKON CREEK

by John Munoz

photos by george e. dolnack, jr.



...waters rippling over stones smoothed by time, complete this pristine setting on the upper Wissahickon Creek.

The windshield wipers were playing a pulsating beat as I left the parking lot after work. My 8:00 p.m. to 5:30 a.m. shift is just right for getting out for a few hours of fishing in the early morning and I was heading for a few hours of relaxation in a wilderness setting that, if you haven't seen, you wouldn't believe it existed!

It was the last week of April, the third week of the regular trout season here in Pennsylvania, and the stream I was going to fish was the Wissahickon Creek which runs for about eight miles *through the city of Philadelphia!* The stream runs through Fairmount Park (one of the largest in the country), on the east side of the Schuylkill River, and is stocked by the Pennsylvania Fish Commission.

It took me no more than half an hour to reach the parking lot alongside the stream and when I parked I could see that I was going to have the whole place to myself. Two

Ed Biasa fishes near Bell's Mills Road.





million people worked and played, lived and died, within a relatively short distance of this very spot, and yet *I was alone!* A nice thing about this stream is that no cars are allowed past the parking area; all fishing spots are reached on foot.

The morning was one of those cold, drizzling days, but still you knew that spring was here. The trees and shrubs along the creek were bursting with every shade of green foliage imaginable.

I opened the trunk and began donning my gear, boots, rain parka, the works. Slipping on my fishing vest, I grabbed my rod and net and was on my way up the cinder road that parallels the stream. As I neared the water, a small flock of mallards broke water and headed upstream. A chipmunk cried out at me for invading his privacy on the other side of the road. As I made my way upstream, the sounds of the city soon drifted away. Wildlife is abundant throughout the park, the Fairmount Park Commission keeps the area as natural as possible for those who enjoy the solitude . . . and I'm one of them!

As I neared the first spot I had planned to fish, I started to rig up an ultralight rod and reel with four pound test line. I planned to fish worms on a #10 hook, an unbeatable combination for the Wissahickon.

My first cast brought no response, but on my second cast, I connected with a rainbow which ran toward the lower pool, turned, broke water and headed back my way. After a few more runs, it lay over on its side and I brought him to net. It was a beautiful fish of about fourteen inches. I fished that spot for another half hour without taking any more fish.

Most of the fishing is done close to the parking areas like Valley Green and Bell's Mill Road, by Walnut Lane. Though some fishermen like to follow the truck on stocking days, I would rather fish during the week when not too many men or trucks are around, and I usually have most of the creek to myself.

I made my way to the upper pool and began casting again. On my third cast I had a "hit," but missed it. Later, on my fifth cast, I hooked into a nice brown trout about sixteen inches long. It was a light colored brown beauty with spots of black and red, and a cream colored underside. It was heavy and in great shape. One more cast in this pool brought a smaller brown which I released.

The next pool I planned to fish was about two hundred yards upstream, above a bend in the creek. There was a small waterfall with about forty yards of fast water. As I neared the spot I saw a large doe taking a drink. Spotting me, she crossed the creek and headed up the hill on the far side. What grace she had as she moved through the woods! The woods and creek grew quiet again, broken only by the cries of a pair of bluejays in a nearby pine tree.

On previous occasions, this had always been a good spot for me. The bottom was very rocky and on each cast I could feel the line bouncing along the bottom in and out of hidden holes. On my third cast I hooked into a nice

Philadelphian Ernest Greenwood has been fishing the meandering Wissahickon Creek for 44 of his 53 years



Bob Phillips, of Philadelphia, shows his catch from below the Margarge Paper Mill Dam, built way back in 1738.

heavy, foot-long rainbow which went through a few acrobatics before reaching the net. After losing two terminal rigs to the rocks, I hooked another rainbow and eventually moved a bit farther upstream. Here I hooked into a large brown trout that I lost when he threw the hook on his second jump. He was every bit of twenty-two inches long and quickly disappeared beneath the fast water. Another half hour of fishing produced no further contact with that beautiful trout, so I called time out for a break.

Looking up and down the stream, no other fishermen could be seen. It was about nine thirty and I still had the stream to myself. A little later I moved upstream to another pool about a mile away. As I walked the cinder road, the sun casting its rays down through the trees made the woods look like a cathedral. How peaceful it was! It was difficult to believe that I was fishing within the city limits of one of the nation's largest cities!

As I neared the next pool, a groundhog which had been feeding along the road dashed across to its den in the underbrush nearby. I ran into two other fishermen at the pool and asked how they were doing. Not much luck, as far as they were concerned, so I moved a little farther up the road and found another pool nearby. On my third cast I started to pick up the slack and felt a light tug. I stopped and waited. It wasn't too long until the fish took the worm with a rush that almost pulled the rod from my hand!

It made one run after another for the slow deep water and after the fourth run, it finally lay over on its side and

I netted it. It was a nice brown and a good 22-inches long. The other fishermen saw it and congratulated me on my good catch. I returned to my fishing and took two more fish, a brown and a rainbow.

Heading back to the car to stow my gear and call it a day, I looked at the big fish again. It was then that I saw the two small hooks: one under his tongue, and the other in deeper, near the gills. This fish was "experienced"! There are always a few holdover trout taken from the creek each year, but they don't come easy — you have to work for them. "Lady Luck" sure was on my side that day!

There are spots along the Wissahickon Creek that make you think you are on one of the top trout streams upstate that many fishermen never get to see. It's surprising more fishermen don't take advantage of such a beautiful stream so close to home.

If trout fishing isn't for you, and you live in Philadelphia, the Delaware and Schuylkill Rivers are only minutes away from the heart of the city and offer good variety. These are fine fishing spots and with the gas shortage and high prices, their proximity to the city makes for economical fishing trips.

Maybe one day we will meet, fishing the Wissahickon for trout; I'll be there . . . hope you will be also.

(Editor's Note: The Wissahickon is open to trout fishing during the extended trout season, until October 31st. Don't miss this opportunity to enjoy trout fishing during the most colorful time of year.)



try this

Bobber Technique

for bass & panfish

by Fredric Doyle

May I help you sir?" asked the girl behind the sporting goods counter in the large department store.

"Yes, ma'am, I'd like to buy a *sliding bobber*."

"A what?"

"A *sliding bobber*. You know, one of those things that you slide up and down on your line."

"I'm sorry sir, but we just sold the last one yesterday."

"Well then, could you direct me to the spinning floats?"

The girl twisted the curl that dangled below her left ear lobe, popped her bubble gum, and nodded toward a basket full of multicolored globules all marked, "Made in Hong Kong." And it was there that my long search ended.

Among the plastic spinning floats I found a small balsa wood bobber. It was unique in that the hollow plastic stem in the bobber was plugged with a small bead. The hole in the bead was just large enough to thread a ten or fifteen pound test monofilament line through this "eye."

Complete instructions for the use of this bobber were not forwarded from Hong Kong. For reasons of their own, the Oriental mind sometimes neglects to make everything perfectly clear, but top secrets among fishermen are generally disclosed when they gather in local taverns and elsewhere.

Thus, if you would like to catch more bass and panfish by using this unique bobber, you have only to gather your spinning gear, take a short piece of monofilament line, about the size of that on your reel, wrap it around your spinning line, tie a knot, a twist knot, or your favorite nonslip knot, pull it tight and clip off the dangling ends. Now, with your terminal gear, that is your sinker, hook, and bait, along with this bobber, attached *below* this knot on your line, you are in business.

Before you cast, note that your sinker, bait and bobber are all bunched together at the end of your line. When this combination strikes the water at the end of your cast, your bobber stays afloat while the line slides down through the "eye" in the bead until it is stopped by the knot.

The great advantage of this sliding bobber is that you can extend the distance of your cast far beyond that of the conventional bobbies which are snapped on securely at, say, four to six feet above your bait, making casting awkward at best. You can adjust your bait to any depth simply by sliding the knot up or down on your line. The knot will pass through the rod guides easily.

The disadvantage of the Hong Kong bobber is its light weight which limits the distance of your cast. To remedy this I made my own sliding bobbies. I took larger corks, took the plastic ink tubes from some defunct ball-point pens, and small beads from my assortment of fishing gear, and larger sinkers. When assembled in the order described, the heavier weight increased the length of the cast proportionally. The bead, by the way, could not be imbedded in the plastic tube.

Taking a backward look I suddenly realized that I have caught more bass with bobbies than in any other manner. The reason for this is that most of my bass fishing has been from the shores of rivers and lakes. In the beginning there was the cane pole along with the bright Cincinnati bass hook, linen line and pickle bottle cork. The cork was sliced half through with a sharp knife, and the line fitted into this slit. It was the first sliding bobber. The wraparound sinker was borrowed from the B&O railroad tracks, remnants of exploded "torpedoes." Live bait was the rule. Minnows, soft-shelled crayfish, hellgrammites and nightcrawlers headed the list. Small stone catfish were also a favorite lure. They were lively and tough, attracting bass when other baits failed. And now with the galaxy of lures glittering in every sport shop, the monofilament lines, the bewildering array of rods, reels and other fishing paraphernalia, I doubt whether all this will put more bass in the pan than the old cane pole and pickle bottle cork technique under cane pole conditions.

By cane pole conditions, I mean where bass could be reached from the shore with this rig. The technique was

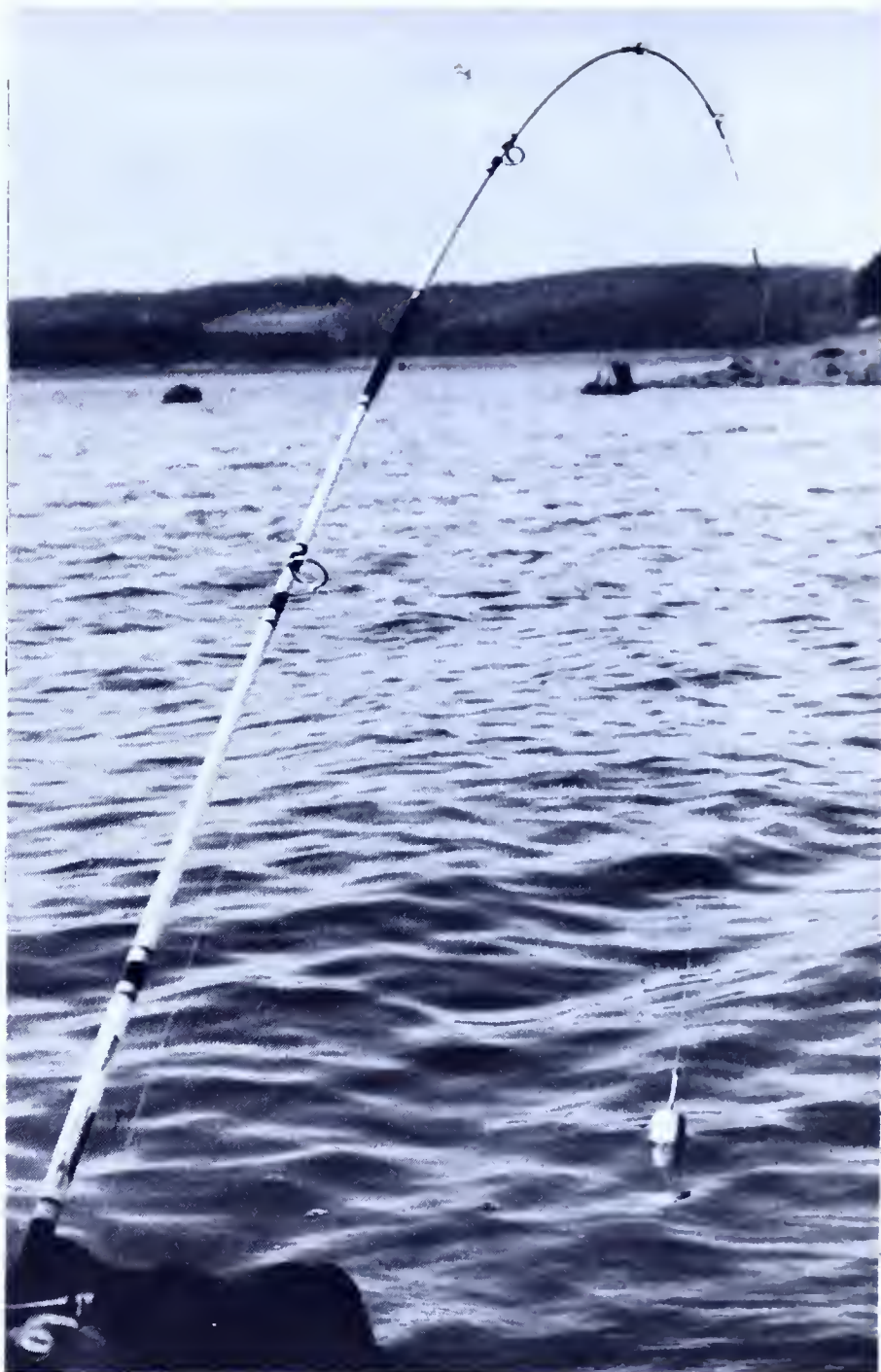
simple, you baited your hook and flipped it into the water, socked the butt end of the cane pole into the mud bank, sat back and relaxed. The pickle bottle cork kept your minnow or other bait suspended just off the bottom or at any appropriate depth. You watched the iridescent winged "snake doctors" settle on your bobber and hitch a free ride as the minnow flashed below.

Suddenly the cork plopped under. You grabbed the cane pole and watched the line slice through the water. You waited with quickening pulse. The cork popped to the surface, jiggled for a moment and slid under again. It was during this pause that the bass turned the minnow so as to swallow it head first. Now I would like to say that we set the hook with a gentle tug, gave the bass all the line we had, and watched it do its acrobatics before bringing it gently to net. But the facts are that we gave a mighty heave and yanked the bass from its watery element with such force that it sometimes landed in the tree branches above!

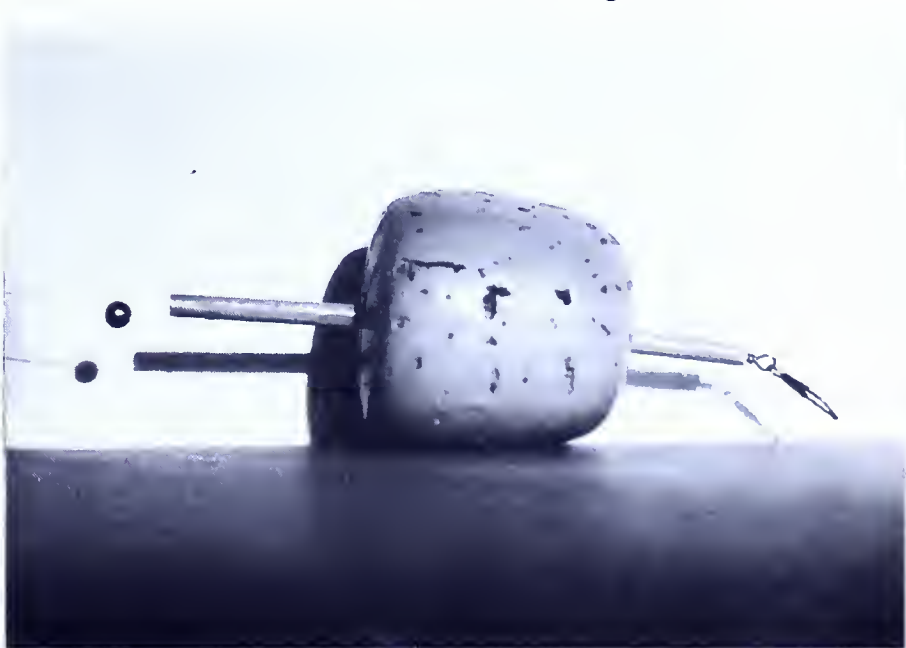
Basically this new bobber technique is the same with considerably more refinement. When using live bait you can reach out many times the distance covered by the cane pole and linen line. You can also use this new bobber as a spinning bubble with streamers, spinners, jigs, plastic worms, or what have you.

For me, late fall bass fishing is best. As the water cools, the bass are on the prowl, fattening up for the lean winter months ahead. With a bucket of live minnows, a spinning rod with the new bobber, there's promise of a day full of action!

Bait dangling from a bobber is deadly on sunfish too.



Above: Casting, and landing fish, are both easier when your terminal tackle is near the end of your line. Below: The author's "sliding bobber."



"This is the Captain Speaking"

by Capt. C.E. Leising USCG (Ret)

Director

Bureau of Waterways

Governor Shapp's telling of the recent death in a boating accident of one of his closest friends added significantly to the formal language used in the Safe Boating Week Proclamation he signed last June 25th in the presence of more than fifty statewide representatives of boating organizations. Anyone who has lost a loved one, or who sees these uglier aspects of the usually enjoyable sport of recreational boating through review of accident reports or water searches for survivors and bodies is even more depressed upon realizing how easily the tragedy could have been avoided, *if only* . . . Those of us charged with responsibility to regulate in the interests of safe boating and to get the word to the ever increasing number of boaters can't avoid some feeling of frustration as the same simple lessons continue to come out of each tragedy. Only the assurance that there can be no real pleasure in boating that is not safe, and that an "educated boater" in charge has the best chance to returning safely, keeps the boating safety teacher, professional or volunteer, from abandoning the effort as a lost cause.

And, certainly the only imaginable benefit that can ever be derived from an accident is its serving as another reminder that even the most experienced boater dare not ignore the basics from the minute he or she first steps aboard to the time they depart the vessel. The knowledge of what wind and wave will do to your boat at varying loads and speeds, and then constant awareness to note these changing effects, is essential. But even more elementary is the knowledge that the one piece of equipment required to be on board every boat and which is the only one that really counts when all others fail (fire extinguishers, signal flares, bilge pump, bailers, direction finder, secondary means of propulsion, radio, etc.), is *your own Personal Flotation Device (PFD)*!

In this case, the boat, a well-equipped 28-foot "cigarette" design ocean racer recently acquired by the operator with years of experience in all types of craft, was suddenly carried by a following sea into a wave that broke over the bow, broke the windshield, and nearly filled the cockpit. The next wave completely flooded the boat and she went under, stern first, within about one

minute. Only a part of the bow remained afloat for even that long and the three men on board had no chance at all to break out the PFD's and the inflatable rubber raft stowed in the forward compartment. They immediately started trying to fashion emergency flotation gear using shirts, jackets and trousers — a tough enough task in calm, warm water; much more so in cold, choppy seas. They parted company after about 15 minutes when they decided that their only chance was to get word ashore and the strongest and best swimmer set out to swim for the New Jersey beach several miles off. The fact that he was picked up about six hours later — a most remarkable survival — is not a valid argument in opposition to the general rule of "staying with the boat" because in this case *there was no boat!* The other two, one an 83-year old man, and the other with a heart ailment, had no chance of making it.

The new Coast Guard construction standards that require manufacturers to install flotation material which will keep the fully submerged or capsized boat afloat would not have helped in this instance because it does not apply to vessels longer than 20 feet in length. Perhaps someday the standard will be extended to the larger craft.

But the old Chinese proverb that "*a PFD is of no use to you if you can't use it*" still stands. Too many refrain from donning the PFD's until it's too late. There is too much the attitude that the wearing of a device designed to save your life makes you a landlubber and a "scaredy-cat" one at that.

I certainly would not suggest any attempt to require all persons to wear a PFD at all times aboard all vessels — although many would like to see this required for white water canoeists. The fact remains that there have been almost no drownings of persons wearing approved PFD's as a result of boating accidents. Even an expert swimmer, suddenly dunked into cold water and concerned about saving those less capable who might be with him, is subjected to a shock and strain that often overtaxes the heart. Particularly in small open boats, with the weather threatening, or when cruising at considerable distance from other boaters who might come to the rescue, **the wearing of the device should be a must for children and those who are less than expert swimmers.** In such cases, the smart and skilled boat handler shows good *boatsmanship* by donning his PFD *before* he really needs it!

Following the ceremony and a light luncheon, a new State/Federal Boating Safety Agreement replacing a 1968 Agreement was signed by Executive Director Ralph W. Abele, for the Commonwealth, and by Capt. T. T. Wetmore III, USCG, for the United States. This agreement confirms the Commonwealth as having primary law enforcement responsibility over recreational vessels on all waters within its boundaries and provides for coordination of Coast Guard and Fish Commission patrols on waters subject to both federal and state jurisdiction for the most effective employment of personnel.

A lively two-hour "Scuttlebutt Session" on the theme, "*Is a Boating Safety Program Really Necessary?*" concluded the meeting with agreement in the affirmative but also recognition that more work and different approaches are necessary if those who need to know are to get the word.

CO-OP NEWS

by Bill Porter

The Mechanicsburg Sportsmen's Association, Cumberland County, gets the attention this month with some very unique features to their nursery. For example, they have only an eight-inch drop on the entire site and a dike separates the Trindle Spring Run from the nursery pens. It's a little different from many nurseries we've seen around the state, but a well-planned and efficient one. Let's check the details in more organized form.

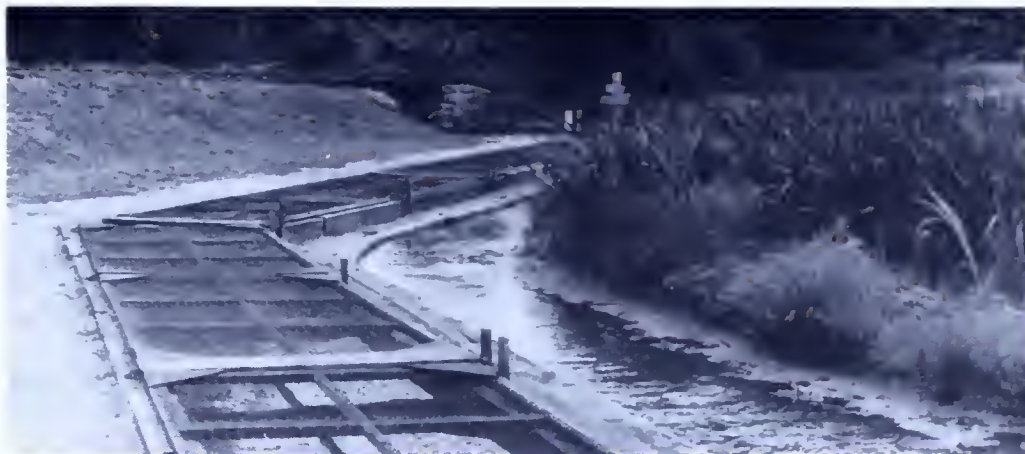
The nursery is in its fourth year of production with 4,000 trout being raised this year. Last year's mortality record showed only 100, which attests to a very good survival rate.

Physically, the raceway is 125' long, containing five pens set into the stream bed. Construction is basically railroad ties with exterior plywood facings toward the trout. A cement and railroad tie dike divides the nursery from the stream. This is necessary because of the limited drop and control of the water levels in the nursery, as opposed to the natural depth of the stream. Screens cover the whole nursery and included are appropriate bulkheads, racks, vertical screens, and proper inlet and outlet areas.

Sounds rather standard, doesn't it? Not really. The site was under observation for a considerable time because of the flat stretch of water and surrounding land. There was the problem of setting the nursery into the stream without disturbing the watercourse, per se. And then the actual fact of construction, working in about 10 inches of water continuously, produced its own unique troubles.

Anyway the nursery was built, fish installed, and the club set down to the business of raising fine trout for a number of area streams, some no longer on the Fish Commission's stocking list. The club currently stocks Trindle Springs, Hogestown Run, Silver Springs, and Trout Run near Grantham. Then along came Agnes the day after new fingerlings arrived. Trindle Springs rose, covering the screens, allowing the small trout to swim or be washed out through the mesh. Out of 3,000, there was a loss of 2,400; but a shocking operation recovered 1,000 of the young fish. No real damage was suffered to the site other than the fish loss.

A "popeye" problem developed and



Mechanicsburg Nursery above; photo below shows unique aerator system.



Clarence Rider and others came up with a fine innovative aerator that eliminated nitrogen and added oxygen to the water. Consisting of a pump, a stand pipe, and a series of splash screens, the unit provided the necessary answer to the water problem. Enclosed inside a screened box, the aerator is protected from debris accumulation and minor vandalism. Altogether, it has proved efficient, and a necessary addition to the nursery.

Another major adjustment to the raceway involved replacing the natural gravel bed, which was difficult to clean, with cold patch. The supplier had his doubts about the success of the material being constantly under water plus the problems of laying it. Regardless, the club ordered 18 tons, secured a heavy hand roller and went to work. Results: leaks stopped, cleaning was easier, and the material has withstood the negative conditions feared by the manufacturer. Oh, yes, the one adverse factor was a few aching muscles of the hard working crew!

Although the club has about 1,200 members, juniors and seniors, plus 153 acres of its own, the members feel they owe a lot to various organizations and individuals for the success of the nursery, located on a ten-acre plot owned by the Mechanicsburg Water Company. The company gave permission to install the nursery and also to develop the whole area for picnic grounds and other outdoor recreational facilities.

The railroad people dropped off two loads of ties for construction purposes and thus earned a "THANK YOU" from the club. In a similar manner, the Steam Engine Association, Williams Grove, supplied additional ties; and so it has gone with the growth and development of the nursery. When it was evident that a building was needed, one was donated, a "fish shed" peculiarly enough, from a man once in the business of handling and selling fish.

"Cork" Sauve and Clarence Rider, co-chairmen of the project, met us at the site along with Mike and Vick Hoffman, and Rodger and Scott Jumper, all workers on the nursery committee. Others help, of course, but these fellows are some of the prime movers.

The trout are fed three times a day year-round and growth is good. Cost of food is going up, which is nothing new, and the club hopes to complete a storage unit to freeze road-killed venison to cut costs and add good protein to the diet.

Trout buttons and general club funds cover the operating expenses and the Mechanicsburg Sportsmen's Association's nursery is in good hands and doing well.

Oh, yes, there is one minor issue. One of the boys indicated a need for some good fill to build up one of the low areas on the site. So if you live in the region, contact Clarence Rider or "Cork" Sauve and the club will handle it from there.



ON SECOND THOUGHT —

While meeting with a man who had been apprehended by a deputy waterways patrolman for blocking a landowner's driveway, a violation of the Fish Law, the defendant was very angry and insisted he was not guilty and said we were very unfair because all those "lazy deputies" did was sneak around and watch these areas just to "make an easy buck" *since they receive half the fine*. He said, "They make all kinds of money!" After he calmed down, I advised him that these deputies work for no compensation and are just dedicated conservationists trying to preserve the sport of fishing and our natural resources. Well, he looked astonished and said, "Oh, then I guess I'm guilty. I thought they were just trying to make a *quick buck*!" He paid the fine. People are people, I guess.

*John E. Stepanski
Waterways Patrolman
Dauphin County*

NUMBER PLEASE!

Fishermen, as we all know, are not limited to catching strictly fish, as evidenced by all the old boots, rubber tires, even wallets and purses that they sometimes haul in. John Gerhard, 68, of Allentown, with his recent catch has added yet another exotic species to the list. While fishing in a local trout stream in 1973, he hooked onto something heavy and could only budge it a couple of inches with each hardy tug. Soon he beached it, and what was the trophy that John has hanging on his wall today? What else but a *telephone*, that John says works fine!

*Fred Mussel
Waterways Patrolman
Lehigh County*

COLORFUL MUSKY —

Albert E. Einsig, Jr. went fishing at the warm water area on the Susquehanna River, Brunners Island on December 13, 1973. At approximately 11:00 a.m. Mr. Einsig had a solid strike and was fast to a musky in the cloudy water. The fish fought long and hard but the hooks held and a 33 inch musky was landed. Mr. Einsig thought it over for a minute and slid the musky back into the water to fight again another day. Picking his

rod up and casting again, there was another strike, but this strike was more vicious, much harder, and the fight more lasting. But alas, the fish was landed and Mr. Einsig had *another* musky, 35½ inches long.

Anyone who has not seen a musky will be amazed at the beauty of this largest of all freshwater gamefish as I was. The colors are really something to behold — even on a dark overcast day in December.

*Warren Singer, Jr.
Waterways Patrolman
Adams & N/York Counties*

NOT TO SPEAK OF . . .

While attending to his father's store, a young college graduate was waiting on customers in the fishing bait area. A young man came up to the counter and asked for some "maggots" to go fishing with. The son of the owner of the store, who had a full length beard, and was not used to being asked if he had maggots, started to run his hands through his beard. Finally, after a few queer glances from the customer, the young man got the idea. This wouldn't have been so funny except that this bearded young man is very clean.

*James E. Ansell
Waterways Patrolman
Mercer County*

BOAT NOTE—

Fishermen should take note of the fact that when an electric motor is attached to a boat, it then becomes a *motorboat* and is subject to all the rules and laws governing them. At Stevenson Dam the violations have been up due to the disregard of the anglers to make sure they are equipped as a *motorboat*. I have found very poor life saving devices, no registrations, and running at night with no lights, increasingly common at the dam.

*Stanley G. Hastings
Waterways Patrolman
Cameron County*

"BRAIN FOOD"?

While attending to duties at the Sports Show in Philadelphia at Convention Hall, a mother and father were overheard explaining to their young daughter that

fish were considered to be "*brain food*". With this information the youngster was prompted to ask the deputy near the live fish display is this were true or not. When asked, he used for an example of the fish's intelligence, the yellow perch and walleye which were in the same tank. He remarked, "See how smart our fish are? They stay on their own end of the tank where their sign is!" Hearing this, the father who was waiting to hear the answer regarding "brain food" walked away muttering, "Oh Boy! Oh Boy!"

*Frank Schilling
Waterways Patrolman
Philadelphia County*

"SEE ALL, KNOW ALL"

Recently, while on patrol I observed a young couple searching a small stream bank. As I approached in my assigned State Car, the young man waved me to stop. They were looking for perfect rocks for a rock garden, and thought that I would direct them to the perfect round type stone they were looking for! Needless to say, I was dumbfounded at this unusual question.

*James Smith
Waterways Patrolman
Allegheny County*

HOLD ON A MINUTE!

I thought we waterways patrolmen had been mistaken for about every type person imaginable, but not so. A telephone caller the other week requested to talk with the "*Warden*". "Well," I said, "you are speaking with him." He said, "When do you want me to come over, and where?" I thought possibly that he had been apprehended by a deputy for a violation so I asked, "What did you do?" He replied, "I robbed a bank!" Well!! I had to think for a minute. Then I found out that he thought I was going to be his **parole officer**! I explained to him that I did not need a part-time job.

*Warren Singer, Jr.
Waterways Patrolman
Adams & N/York Counties*

REALLY BAD DAY!

Have you ever had one of those days when nothing went right? I recently ran into a fellow from Altoona who had the bad day to end all bad days. While I was patrolling Canoe Lake, I apprehended this fellow with two undersized chain pickerel in his possession. I explained his rights to him and he decided to settle the violation on a field acknowledgment. However, he did not have any money with him. I gave him my card and told him to call me to set up a date and meeting place. Later that afternoon, he came to my house and told me he wanted

to take care of the penalty right away. He asked me if I had any tape. When I asked him what seemed to be the trouble, he said that as soon as he had pulled up in front of my house, one of his radiator hoses had burst. All of his water and antifreeze had run out on the street. In addition, he said that when he had gone home after being picked up for the two undersized fish, his wife told him that their water heater was leaking water all over the basement. I guess you could say that this just wasn't one of his better days.

Walter Rosser
Waterways Patrolman
Blair County

TURNABOUT!

Boating is changing every day. Yesterday I saw two rescue missions on Lake Wallenpaupack involving motorboats and sailboats. The only difference was that the *sailboats were towing the motorboats* in for repairs!

Joseph E. Bartley
Waterways Patrolman
Pike County

MENTAL LAPSE!

Deputy Ed Teck and I encountered two teenage boys fishing during the closed season this past March. The one lad obviously about thirteen, while the other appeared older than the fifteen years he claimed. I asked the boy, "When were you born?" He replied, "December!" "What year?" I inquired. A blank expression crossed the boy's face and he stammered, "Now, there's where I get confused!"

Don Parrish
Waterways Patrolman
Beaver County

OH BOY!

While fishing for walleyes one day, I noticed a fisherman with a very nice stringer of them. He was using a gold-sided rapala and I asked if he was putting pork rind on it. He replied, "Oh, no, I sing my little song while I do my trolling and it works fairly well." When asked to hear his song, out went the plug, and as he began to troll, he sang, "*Fishy, fishy, in the brook, put your mouth on my hook.*" Suddenly, there it was, about an 18" walleye! "You see how easy it is?" he asked. "Well, that's my limit, see you around," and away he went, whistling his little tune. It made me sort of mad, not because of the nice fish he had, but because I didn't bring a tape recorder with me. I had just let the number one tune get away from me!

Gerald Greiner
Deputy Waterways Patrolman
Allegheny County

ON THE SHORT SIDE—

Larry Zielinski, a commercial fisherman from Erie, called me one evening and stated a fellow fishing at the Cascade Dock had brought a fish up to his house to be identified. Larry informed me that it was a *sturgeon* about 9 inches long and was alive in a bucket of water. The fish was rushed to Presque Isle Bay and given his freedom. This sturgeon would probably be a record for the smallest sturgeon ever caught on hook and line. It will be probably the oldest fish for the nine inch length due to the fact that the sturgeon's growth rate is about one inch a year.

Norman E. Ely
Waterways Patrolman
Lake Erie

SHE'S LEARNING!

My wife and I were having a conversation recently about moving our furniture to my new district. She became rather pensive for a while, and then asked "Do you know what we *really* need?" I was sure that she had a new living room suit on her mind and was prepared to rebut her pleas.

"No," I replied, "what do we really need?"

"We need a new canoe so we can fish and float trip together . . ."

If my wife had asked for anything else, she probably wouldn't have gotten it but you can bet this request will be granted! And just think it only took 12 years of marriage to get her this *well trained*.

Harry Redline
Waterways Patrolman
Lancaster County

OBEDIENCE—IN SPADES!

While stocking streams during the pre-season period, we had a very good turnout and much help. At one of the stops on East Sandy Creek, truck driver Jack White and I noticed some of our "*Bucket Brigade*" putting the fish in a bit close to the shore where the water was shallow. We told them to get the fish out into deeper water so mud and silt would not get into their gills.

Two of the young fellows helping out took us at our word, waded into the middle of the stream to dump their buckets. What made it so unusual, was the fact that *neither of them had hip-boots or waders on*, and the water temperature was in the high thirties! When asked why they did it, their reply was, "**Well, that's where you said to put 'em, so we did!**" If that's not dedicated obedience, then I don't know what would be!

Robert J. Cortez
Waterways Patrolman
Clarion County

INFORMATION—

If you seek information about a specific lake, pond, river, or stream, the district waterways patrolman assigned to the county in which that particular waterway is located is your best source of information. You'll find his name, address, and telephone number listed in both your *Summaries of Pleasure Boating Requirements and Fishing Regulations and Laws*.

For other information, consult the directory on the inside of our back cover and direct your inquiries to the bureau, division, or section concerned with the activity in question.

GRATIFYING RESULTS—

At the close of a recent fishing school held in the Hanover area, two young lads didn't waste any time putting their instructions to good use. As soon as the last session was over, the certificates and patches were handed out and the young lads proceeded to Lake Marburg where they were cunning enough to land a Citation bluegill each!

William F. Hartle
Waterways Patrolman
S/York County

OUT OF THE BAG!

Mr. James Ferraro of DuBois, Pa. caught a 21" palomino from the First Fork on the opening day of last trout season. As I was checking the fish, word got out that he was a die-hard fly fisherman but as conversation passed, I found out that the fish was taken on *salmon eggs*! I don't need to tell you the commotion this caused among the other fly fishermen in his crowd. Shame on you Jim!

Stanley G. Hastings
Waterways Patrolman
Cameron County

DIFFERENT VIEWPOINTS!

One morning I watched as an osprey was "fishing" one of the riffles below the spillway at Raystown Lake. His first two dives were unsuccessful. The third, however, produced a rather large white sucker. With the sucker clutched tightly in his talons he attempted to gain altitude with some degree of effort. My location was elevated above the river and I had an excellent view of the whole operation, the osprey being within fifty yards of me most of the time.

As I watched though my binoculars, I could almost detect a look of satisfaction on the bird — and a look of dismay on the fish!

James T. Valentine
Waterways Patrolman
Huntingdon County

continued on page 27

"56 years at the vise"

by Nick Sisley

Ralph E. Ford of Pleasant Hills, a suburb of Pittsburgh, first sat down at a fly tying vise in 1918. That was *fifty-six* years ago. Today he is still going strong! A perfectionist, Ralph ties some of the highest quality trout flies that this country's fishermen can ever hope to see. That fact, along with the desire to continually look for better methods of tying and new techniques, coupled with his many years of experience, put him in a class with the fly tying greats.

When Ralph started tying those many years ago, there was no one to teach him. He sat down at the bench and vise for hours on end. He often worked from seven in the evening until midnight, trying to learn how to tie one difficult pattern. Many times it was inferior, too, but he persisted.

Instructive type literature was not available in his early years of fly tying. A few of the books written in the nineteenth century were very valuable to the upstart fly tier of those times. However, most of them were out of print. Ralph was able to obtain a copy of a book by H. G. McClelland, *"The Trout Fly Dresser's Cabinet of Devices."* He claims that book has more pertinent information of value to a fly tier than any other he has seen since. He still refers to it.

After World War II, there was a boom in fly tying interest. Many doctors recommended it as therapy for wounded veterans. Interest by trout fishermen soared, too. As a result, the various neck hackles, fur, and other natural tying materials were literally eaten up by the public. Ralph claims that since that time he has had trouble finding quality material.

The cost of materials used in fly tying has also soared. What cost a buck before World War II now may cost ten! But no matter what the price, one cannot buy the quality of the old days. Ralph says the quality of the fly never exceeds the quality of the tying material.

In this respect, he thrives on tying only the best. First and foremost, he loves to tie top-quality dry flies. Dry fly fishing has always been his favorite method. Like many trout fishermen, he gets his biggest thrill from those splashy top water strikes. Accordingly, he loves to have the fellows that buy his flies come back to tell him stories about the dry fly patterns with which they have had success.



In 1928, he started tying flies for the old Brown's Sporting Goods Company in Pittsburgh. Here, his work was in demand for many years, in fact, Ralph tied for this firm until they went out of business. Reminiscing, he recalls getting paid a dollar a dozen in those days. But that was enough! In the bleak days of the depression, no one looked a gift horse in the mouth, particularly when it bought a big bag full of groceries.

Today Ralph ties only on a custom basis. Fellow fishermen place an order for what they want, then he goes to work at the vise. He keeps only a limited stock of flies on hand. For him, it is satisfying to make up what discerning sportsmen want. Many times the orders are for special flies of new and original patterns, too. Few men are willing to go to the trouble of tying such specialties these days, but it's just another challenge for Ralph!

He has a fantastic collection of old, quality bamboo fly rods. Rather, they are not a collection, all are in use when he can find time to get away for a session of fishing. Included are those from some of the famous makers: Hardy, Leonard, Payne, Regent, and others. Ralph pulled out a sack of reels to show me. He could hardly lift it! There were over 30 reels in that bag, many of them dating back to the early part of this century.

Ralph retired in 1960. Naturally, he has been spending much of his spare time since fishing and at the vise. He says without fly tying, it would be a boring retirement life. He usually has more business than he can handle.



Veteran Fly tier Ralph E. Ford tests the action of his favorite dry fly rod, a light seven foot "Regent."

Notes From the Streams
continued from page 25

ARE TROUT "CAT"-FISH?

There are many four-legged predators on fish, both real and imaginary, to be found in Pennsylvania, especially during the closed season after the stocking of the state's many trout streams. I feel I may have seen one of the most unusual! Recently, I had completed stocking the upper section of Black Log Creek in Juniata County and was returning down the valley when I spotted this predator walking through a field near the stream. I stopped and backed up to get a closer look at the animal which was carrying a nice nine inch trout firmly in its mouth. It saw me getting nearer, but refused to drop the fish, crouching in the grass and watching me closely. After a few moments, I drove away allowing the black and white house cat to continue on its way with a nice trout dinner. Whether he had picked the trout up in the field after it had jumped from a bucket unnoticed, or deftly scooped it from the stream, I will allow the "cat haters" or "cat lovers" to decide.

*Larry R. Baker
Waterways Patrolman
Mifflin/Juniata Counties*

REQUESTS — BEDFORD COUNTY

During the first part of the trout season this year, I have received more requests relative to trout streams, stocking of trout, and "lodging accommodations for several days," than any previous year. The requests are by phone and letter . . . most of them from quite a distance from Bedford County.

*William E. McInay
Waterways Patrolman
Bedford County*

QUESTIONS, QUESTIONS!

The wife of a waterways patrolman receives many strange calls and two of these calls come to mind at this time. One was from a very young boy wanting to know if he could go across from his home, in a trailer park, and fish on Sunday. He was afraid that the "fish warden" would arrest him for "fishing on Sunday". Another caller, also a young boy, wanted to know how many worms he was allowed to possess.

*Stanley G. Hastings
Waterways Patrolman
Cameron County*

WALKING IS WORTHWHILE!

I have some streams in my district that have roadways that are gated by the property owner. This stocking season I, as usual, took the fish through the gates and stocked the stream. The stream itself is open but the roadways are closed to public travel. I was very surprised to have one fellow tell me of the disgust of the truck followers that they could not drive along behind the truck on these closed roadways. It is only with the consent of the landowner that the streams are open to public fishing! To have this kind of criticism being leveled at the large landowner companies is unfair. What would happen if these companies would say, "Stay off my land whether with vehicles or on foot!"? Then you would see some real ill-tempered feelings. A little walking to catch that limit of fish will not hurt an angler. If anything, it will help him greatly.

*Stanley G. Hastings
Waterways Patrolman
Cameron County*

Each of us has a responsibility to teach our youngsters good outdoor manners. Have you started?

Keystone Camping

by Thad Bukowski

One of the state's top-notch trout streams, noted also for its small-mouth bass action during the summer, spills southward out of Potter County, into Clinton, and forms a picturesque section of the Pennsylvania countryside all the way to the Susquehanna's West Branch, into which it flows.

It is the Kettle Creek watershed and it gathers additional flow from two other outstanding trout waters, Hammersley Fork and Cross Fork, until halted along the mid-course of the Kettle at Alvin R. Bush Dam which has a fine campsite on the wooded hillside overlooking the impoundment.

Hardly a stone's throw downstream is another campsite right on the shores of Kettle Creek where a small dam holds back the waters of the Kettle again, just momentarily, for good smallmouth bass fishing. Trout action is also available since this is a favorite squaretail stocking point. Youngsters also have panfish action hereabouts and I have seen them take some fine longear sunfish.

The two campsites are hidden away in the north central section of Pennsyl-

vania's most rustic countryside. If you travel along the Kettle in this area, you can only be impressed with the wild nature of the hills and valleys that greet you at every turn in the road with the Kettle always cutting a blue ribbon thread through it all.

The Kettle is a particularly great early season trout stream, but as spring progresses, fascinating caddis hatches come off the waters to additionally intrigue the fly addict. Other insects interest the purist later in the summer also.

When we stopped at the lower Kettle campground, sulfur dun mayflies were slowly rising in the late afternoon sun and precariously making their way toward the treetops to hide under the leaves. Few of those we watched, however, got much higher than 40 feet; and we saw none make it to the trees.

"Look at the quiet drama nature is spreading before us," my trout traveling companion, Ray Bales said. He looked around at the early evening supper hustle by campers about us and quietly added, "And none of the campers appear to be aware of what is taking place."

As each sulfur dun glistened in the sun, climbing towards its haven, a crested fly catcher gracefully floated down from the nearby trees and plucked it out of the air for supper. Nearly a half-dozen flycatchers patrolled the dam which was the only place where the duns were winging out of the water. The copper reddish hues of the birds were equally beautiful to view in the early July evening and the blossoming mountain laurel, in the peak of its bloom, completed the scene.

"It's a shame," continued my companion, "those sulfur duns spend two or three years in the mud and silt of the dam and emerge only to be eaten! For those that survive, mating will occur in a few days when both males and females appear again from their hiding and thousands may be seen above the stream for a short time before the eggs are deposited."

Later, we traveled along farther upstream to nearby Alvin R. Bush Dam which was constructed as a flood control project in 1962 on the watershed to help stow water above the west branch of the Susquehanna as a flood protection, particularly for nearby Renovo.

The 160 acre summer lake has a length of 2.2 miles, good for canoeing and small boat activity, with 4.5 miles of natural shoreline for additional fishing. A turf beach, with designated swimming area, dressing area, sanitary facilities, boat launching ramp and parking, and picnic spots at the dam's upper shore provide fine summer recreation facilities. The camping site is hidden in the nearest wooded hillside above.

Rowboats, sailboats and canoes are permitted on the lake. Available fish species include brook, rainbow and brown trout, and smallmouth bass.

The combined facilities of Alvin R. Bush and the lower Kettle campgrounds provide for a secluded camping opportunity for those who like to be away from the crowds in one of Pennsylvania's sections of "wild country" with many trout fishing opportunities available as well as swimming and quiet boating possibilities.

At the Alvin R. Bush Dam you'll find a fine campsite on the wooded hillside overlooking the impoundment.



THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Northern pike seldom feed at night, and as a result empty stomachs spur them to feed vigorously during the early hours of the day, and they continue feeding until darkness comes again.

Slow trolling with a plug having a long lip is not the best method. The lips are designed to make the plug travel deep in the water, but trolling speed also is required to get the lure down. The best way is to adjust the trolling speed so that you can feel the plug barely knocking the bottom, then slow down just enough to allow the lure to travel freely.

Good river spots for bass include the tails of deep pools, deep holes close to the banks, water around large rocks, swift rapids and deep riffles.

A wide variety of land insects — grasshoppers, inch worms, beetles, ants, and bees, for example — are good bugs to imitate when fishing a trout stream after a brisk summer shower. Raindrops knock these land insects off trees and other vegetation, and trout are waiting for them.

Jigs dressed with marabou are the favorites of a great many anglers. This is because marabou "works" in tantalizing fashion, producing much better action than hair, feathers, or other dressings. A

point to remember is that the slower the jig is retrieved, the more action will come from the marabou.

Lift a hooked bass out of the water by grasping it firmly by the lower jaw. The bass so handled will rarely put up a struggle.

Hold the rod tip high in popping or twitching surface lure. The rod angle will keep a considerable length of line off the water surface and make it easier to manipulate the lure and set the hooks, should you get a strike.

Very small lures often produce fish when those of larger sizes fail, but do not make the mistake of using a heavy, stiff rod and a heavy leader with the midgets. A light and whippy casting or spinning rod and a line of not more than six or eight pounds test are the proper combination.

Don't be too proud to fish for carp. They may not be the best eating, but they are strong and determined fighters when hooked on light tackle.

Be sure your anchor rope is long enough to meet all water depths you will encounter while fishing. Some states require this by law. But common sense dictates that too short a rope will make an anchor useless.

Muddler minnows are versatile artificial lures that will take bass, walleyes, northern pike, and pickerel as well as trout. They represent forms of natural fish food: large nymphs, sculpin and bullhead minnows, and crawfish. They should be fished slowly and close to the bottom.

Squeaks in the oarlocks of a rented boat are a problem. Dip the metal attachments on the oars in the water from time to time, or put a bit of oil on them.

Change the speed of the retrieve frequently when fishing with lures for pike and bass. Sometimes fish will travel a considerable distance to attack a lure, but at other times they refuse to exert themselves and will strike a lure only when it is placed within easy reach and is traveling at a leisurely pace.

Before moving the boat from an area you are fishing, try a few casts at very short distances. Fish often gang up in the shadow of an anchored boat.

In trolling weedy water, inspect the lure frequently and keep it clean. A bit of moss or weed can foul a spinner blade or keep a plug from working properly. And fish ignore lures that have debris trailing on them.

In Memoriam

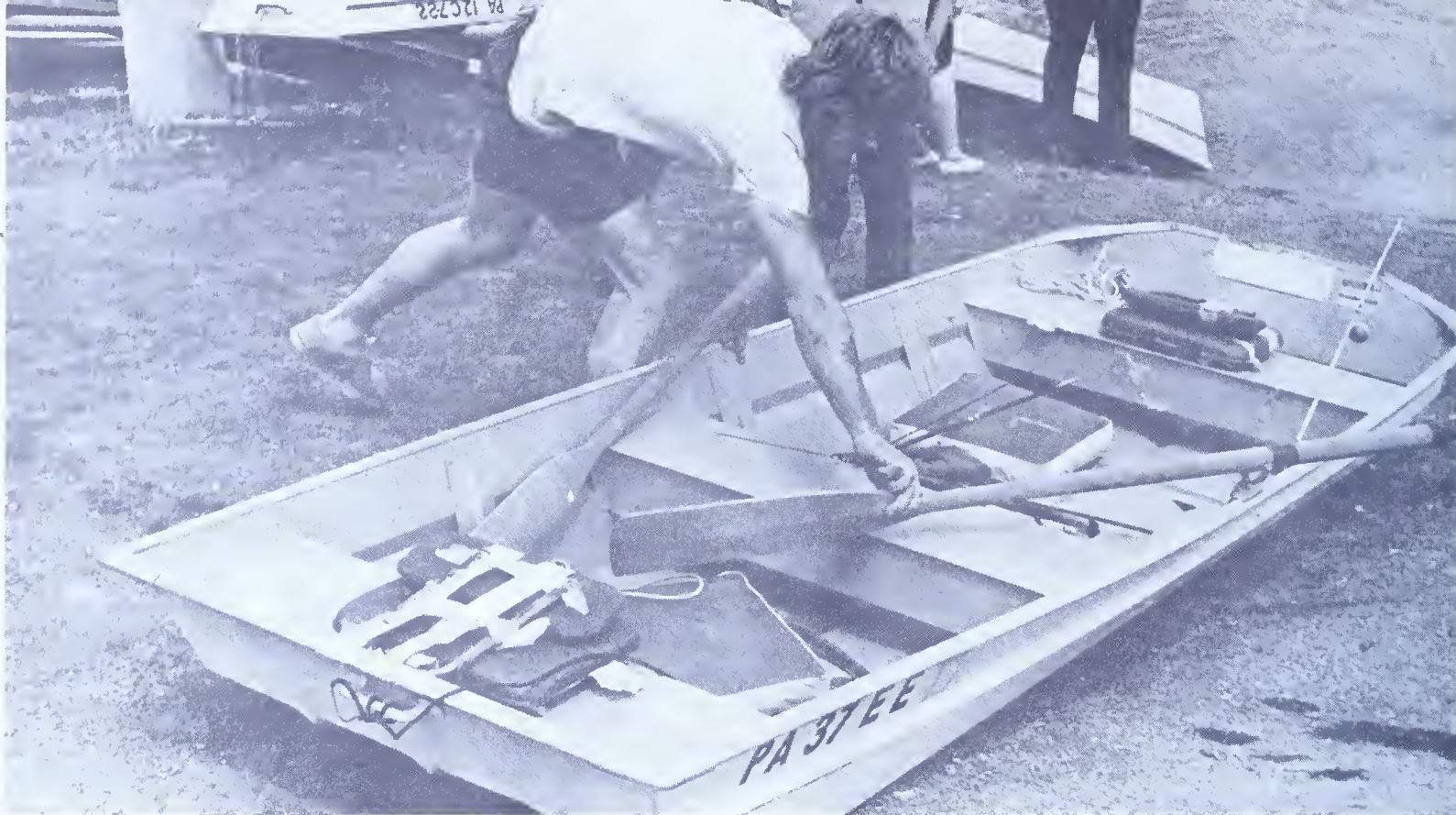
H. R. Stackhouse

H. R. Stackhouse, who served the Pennsylvania Fish Commission for 43 years, passed away April, 1974. Mr. Stackhouse joined the Commission as a clerk in the Harrisburg office in 1917. In 1923 he was named administrative secretary by then Governor Pinchot, the post he held until his retirement in 1960. During his tenure, "Stacky," as he was known to all, served twice as acting Executive Director and the Commission's Training School at Bellefonte was named in his honor. In 1954 he received the gold medal award for fisheries conservation work from the Pennsylvania Fish & Game Protective Association.

Budd R. Brooks

Budd R. Brooks, who began his Fish Commission career at the Bellefonte Hatchery in 1945, passed away on June 17, 1974, having served in a number of capacities since that time. In 1949, Budd served as "Fish Warden" in Washington and Greene Counties, and in 1956 transferred to the Benner Spring Fish Research Station to assume duties as fish stocking manager, the position he held up until his death.

In 1971 he received the "Governor's Meritorious Citation" for his efforts in streamlining the Commission's fish distribution system which resulted in an annual saving of \$40,000.00.



Since passenger movement afloat is a dangerous practice, organize gear within arm's reach while ashore.

Ashore & Afloat

by Gene Winters

For years we have heard the adage. "*Never discuss religion and politics unless you want to make an enemy out of a friend.*" In these days of wide open topics of conversation it may not hold true, but if it does, maybe we should add: "*or types of boats and hulls*"! When it comes to boat talk, nothing can get you into a heated verbal confrontation faster than favoring one type over another. But there is no easy answer to which boat is best — even for you. Contemplating a boat purchase should start with a checklist of questions which the prospective buyer must answer for himself. If you already own a boat, chances are you found some of your answers after the fact. But present boatowners be forewarned; if a buyer-to-be realizes you have more than thirty days boating experience under your belt, you are fair game for a barrage of questions and he will be perplexed and dismayed to no end why you can not supply absolute answers. At this point in time, he will swear the boat he is considering will be a lifetime marriage of man and machine.

Over the years, helpful though I try to be, I have tried to steer clear of definitive answers to searching questions. When queried, I try to give the newcomer a verbal list of

questions which *he* must answer based on his boating interests and anticipated needs, present and future. I point out emphatically that, like most things in life, selecting the proper boat involves compromise and more compromise. Take boat length — everyone would like a 65-footer but few of us will ever own one. All of us seem to want a boat that is fast, but out of necessity, regulation, and common sense safety, most of us will operate it far below its top speed most of the time. Many of us desire all the conveniences of home aboard yet short of a spacious houseboat end up "roughing it" to some degree or another. We seek a sleek, razor-edged bow that will slice through rough water like a hot knife in butter. But at the same time it must be steady enough when at rest to balance a glass of water on the deck without spilling a drop. Compromise, compromise . . .

What probably saves most of us from courting financial disaster is the fact that our first boat is usually small, relatively simple in design, and a "bareboat" in the fullest sense of the word. And it is relatively inexpensive. If we make the wrong choice (or our boating needs change) it does not throw us into bankruptcy. For the lucky ones, that first boat blossoms into a never-ending love affair. When I purchased a 21-foot daycruiser my sentimental nature took control of me and I could not bear to part with my first boat. My romantic affair with that little 14-footer was overwhelming and still is. While I can navigate my larger boat in most any water, including selected coastal waters, the inherent limitations of the smaller boat have been blessings in disguise. I can enjoy the 14-footer in waters where motors are not permitted and float it in water shallower than in which I can row. I can quickly clamp an electric motor on the transom or mount it on the bow and chase those crazy Pennsylvania bass in lakes of 50 acres or more. If the lure of the musky in the Susquehanna overpowers me, I

simply lock on a gasoline outboard powerful enough to do the job but small and light enough to handle by myself. No enlisting help from the wife's relatives is necessary. My only pet peeve about the 14-footer is that its weight (over 240 pounds) is too great to be cartopped or wrestled into the water by a normal size man. But a small, adequate trailer, and a nearby launching ramp, are all I need to make a day of solitary boating and fishing still an easy undertaking. Though its length, beam, freeboard and weight penalize me in the handling department on land, on the water these same limitations bring a premium of higher horsepower rating and greater weight-carrying capability. (Did someone mention compromise?)

If you are typical of many first boat buyers in Pennsylvania (and especially if you are a fisherman) your first nautical love affair is likely to involve a johnboat, one of the most popular boats in the world. Johnboats are typically lightweight flat-bottomed utility type boats, popular in small rivers, lakes, large ponds and large creeks. The secrets of the johnboat's success are not hard to find. Their shape and construction makes them comparatively inexpensive, a favorite with hunters as well as fishermen. The johnboat makes the near ideal cartop boat because its size and weight make it easy for one or two people to load, unload, and put in the water without strain.

The johnboat user does pay a price, though. (Compromise?) In order to achieve the advantages mentioned, it incurs some waterborne disadvantages. The lightweight, flat bottom, shallow draft and narrow chine beam combine to produce a boat that reacts and moves quickly in response to passenger movement. This can

make balance difficult and motions easily done on land can become highly dangerous on water. In a smaller boat, each activity is magnified by the smaller space to do it in. It is important that everything be organized within arm's length. **Its shape and freeboard characteristics make the johnboat suitable for use only in calm water.**

But make no mistake — the johnboat represents a good compromise “starter” boat for many. If this be your choice, let me add some final advice: look for a boat with more beam (width) per given length, more freeboard (greater “side height” above the water's surface) and a fairly high bow and stern. Make sure it has flotation and lots of it. Coast Guard regulations require new boats to have just enough flotation to keep the swamped boat afloat with passengers clinging to the *outside*. Some boat builders, however, are installing sufficient flotation to keep the boat floating upright and level, and in some cases, with passengers inside.

But any boat can only be made safe up to a point. No matter what size boat, it still takes a man to run it. Follow the few simple rules that will keep you safe. Pick your water and winds carefully. Know not only your boat's capability, but your own ability. Don't overpower and don't overload. **Follow that capacity plate to the letter!** And remember, it applies to *normal conditions of wind and sea*. It is not a bit of added decoration. Distribute weight of gear and passengers so the boat does not list to either side and the bow and stern ride about level. And, consider **wearing a personal flotation device (PFD)**, not just *carrying* it on board.

Remember, johnboats, like all others, are safe only if *you* are careful. Handled properly and with devoted respect, they will do their job and do it well!

The johnboat's extremely light weight and comparatively low cost make it attractive to many first time boaters.



FISH TALES



Donald Besecker, of Stroudsburg, caught his 26-1/2-inch, 7-pound American Shad from the Delaware River, Monroe County, last April.



Angler Edward Long, of Bethlehem, holds the 20-inch, 4-pound small-mouth bass also taken from the Delaware River, Northampton County.



Keith Gorman, 13, of Allentown, caught this nice 20-inch, 3-pound rainbow trout last April from Monroe County's Leisure Lake.



Mayor Edwin Nordahl, of Nicholson, shows the 27-3/4-inch, 17-1/2-pound chain pickerel taken from Lake Carey, Wyoming Co., in February.



Little Brian Lucas, 6, of Erie, caught this beauty last April, a 25-3/4-inch, 5-5/8-pound steelhead trout from Twenty Mile Creek.



Connie Freudenrich, 10, of Glen Rock, N.J., holds her 35-1/4-inch, 24-pound flathead catfish taken from the Allegheny River, Warren Co.



A Mt Bethel angler, John Beresch, caught his 22-inch, 6-pound, small-mouth bass in Northampton County's Delaware River, last April.



Harry Hughey, of Altoona, shows his 40-inch, 17-1/2-pound musky taken from Raystown Branch of the Juniata River last May.



Earl Beichler, 14, of Dalton, caught his 19-inch, 3-pound brown trout in the S. Br. of Tunkhannock Creek, Lackawanna County, in April.



A Sharon Hill youth, Sam Rowe, Jr., caught this nice 19-inch, 5-pound largemouth bass last March from the Chester-Octoraro Reservoir.

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*That's
Bob Anderson,
holding his giant
coho salmon caught in
Lake Erie!*

*Sure,
that one's
gone—but there will
be many more replacing it
this year!*

*Besides,
this year we
expect to see some
chinooks nearly twice
that size!*

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OCTOBER, 1974

Angler

the
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Official
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13, No. 10

True Conservation



Back in its early days, I joined Trout Unlimited intrigued by their aggressive willingness to do positive things rather than just talk about them. Stream improvement projects were among their first recognizable accomplishments.

Since then, Trout Unlimited has become one of the nation's most effective conservation organizations, particularly in Pennsylvania. With astute leadership, the individual chapters, grouped into areas, are led in concerted efforts by the State Council. We find them to be our staunchest allies in the pursuit of common goals. The support from TU members in stream monitoring, testimony at public hearings, educational projects, and the still very prominent stream improvement projects are some of those visible evidences that TU is here to stay — and we're glad they are.

Perhaps one of their greatest achievements — and one that almost went unrecognized by the general public — was the TU leadership in pulling state and federal agencies together to adopt strict but feasible guidelines for recovering from the disaster of Hurricane Agnes, with regard to the waterways of the Commonwealth. In short, because of the credibility of TU's effective leadership, benefits to the Commonwealth were manifold.

At the other end of the pool, but still in the same field of fisheries, is the State Federation of the Bass Anglers Sportsmen's Society. Just a little over a year ago we wrote an editorial about the "gentle art" of angling, and, being somewhat apprehensive at the time after having witnessed some of the earlier southern bass tournaments, we thought the Fish Commission should closely monitor and evaluate any such tournaments in Pennsylvania to make certain that there was no adverse impact on our fisheries for the millions of anglers who continue to look to recreational fishing for contemplative purposes — as well as rewarding catches. That brought down a storm of protests! After meeting with B.A.S.S., and monitoring a couple tournaments, we are pleased to see that these *sportsmen* are very much concerned about their image and our fisheries resources.

The most recent tournament at Lake Wallenpaupack was a good example of a well organized event. There are strict rules and contestants can be and are expelled for violations. Their safety regulations are much more strict than our own. The justice is swift and severe.

Accompanying this is their "no kill" policy. It was gratifying to note that in two days of intensive competitive fishing there was only one bass killed — and that by accident at the weighing-in station. Penalties are levied for dead fish, or those in poor condition.

It's a tired bunch of fishermen who sit down to divide their prizes which are awarded on a complex point system — you know that they have been concentrating intensely on their sport.

In summary, we don't think that B.A.S.S. in Pennsylvania is hurting the resource at all. Policing their own ranks as they do with the adoption of strict rules and regulations, we look forward to them as another ally — and certainly not an *adversary*.

The true conservation organization is one that cares more about the perpetuation of the resource than the immediate enjoyment of it. Without any reservation, we can heartily recommend either of these organizations to all Pennsylvania anglers.

Ralph W. Abele,
Executive Director

it's
really
not too
early to
think about
your Christmas
shopping problems
and we'd like to help;
we can make it as simple as

1

2

3

(turn page)

**1. Special friends
deserve special gifts**

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is a special gift!**

**3. Turn to back page
for full details.**

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

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Front Cover: Not too many weeks ago, James Thomas, Jr. was catching bass from the Susquehanna River when they weren't supposed to be biting.
Photo by the editor.

Back Cover: Sunset on the Susquehanna River. Cooler autumn weather should put most gamefish in a more cooperative mood—try fall fishing!
Photo by Virginia Yoder.

James F. Yoder, Editor

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With the writing of this column, Stan Paulakovich, Assistant Supervisor, Southeast Region Law Enforcement Office, concludes six years as a regular contributor. Over these years his columns have provided Angler readers with some of the most timely and effective fishing tips available anywhere. We wish Stan every success in his new assignment.

Fishing Outlook

by Stan Paulakovich

A lot of water has gone under the bridge, and we have visited plenty of fishing holes in six years of **Fishing Outlook**. A recent reassignment makes it necessary for me to end my contributions to this monthly feature.

October is one of the finest fishing months of the entire year. The fish cooperate now, like at no other time of the year. The first frost of the season has severed the thin thread of life that has kept the tree leaves verdant and upright. No longer are they raised to the heavens in supplication for sun and rain. They leave in a blaze of glory. The Master Painter has outfitted them in brilliant scarlet and gold for their last few weeks.

The fishes also seem to want to put on one big splash before the wintry waters curtail their need and want for food. The top fishing prospects for the month are lake fishing for trout, or fishing one of our rivers for small-mouth bass.

There are 86 lakes and ponds within the Commonwealth that we stock with trout. After the 30th of May, it's difficult to find a trout fisherman on one of these bodies of water. In October, these hungry trout are just waiting for some fishermen to come by.

Last year's article for this month, dealt with fishing big LAKE WALLENPAUPACK for trout. This is Pennsylvania's premiere trout lake and the size of some of the brownies that come out of here in October is unreal. I talked with

one dedicated Scranton fisherman who took 37 brownies out of the lake last year, all over 20 inches long. First two weeks of the month were best for him. He fished a variety of baits and lures. Worms were the best producer in bait. The small 3-inch rapala in silver, trolled slowly behind the boat, or number 3 silver mepps spinners, cast from shore, did best among the lures.

Fly fishing in Wallenpaupack last October fell off from what it had been the previous year. Hatches were not as prolific as they had been and the weather on the weekends was kind of drizzly. Number 8 and 10 brownish colored wet flies worked in the past and if conditions are good this time around give them a try. These should also work in some of the other smaller lakes and ponds that have trout in them. Most of these are much better fished from shore than by boat.

Fishing the rivers during October can be a joy, the smallmouths really hit then. Waters are low and gin-clear at this time of the year and there's no problem in locating the fish. Water temperatures as well as air temperatures remain pleasant throughout the day. The fish can be found along the shorelines as they prowl for food.

The upper Allegheny River at this time is in peak condition. Access areas for small boats are found in every county along its course. And this is the ideal way to fish the river now. You have your choice of bait to use at this time of year. Worm and spinner combinations, as well as worms alone, work very good. Minnows, too, can be used by themselves, or with a spinner. Hellgrammites are terrific now if you want to take the time to net a few from the riffles.

Lure fishermen out here like the small hump back rebels in blue, for surface fishing. Underwater, they go for mirror-lures in greens and grays. Lures that are small work a lot better than big ones.

On the North Branch of the Susquehanna, fishing is best in the deep pools. Bait fishermen prefer the stone catties, right from the river. They work equally well when dead or alive. Best lures have been the deep running plugs that imitate minnows.

The West Branch of the Susquehanna, from Williamsport down to Sunbury is starting to get some

That's "Big Stan," center, actively engaged in one of his new duties—directing stream improvement work.



fishing in the fall. Long thought of as just a polluted mess, it's now starting to "come around." Minnows and worms are best in this stretch of the river.

The main branch of the river, from Sunbury down to the Maryland line is one of the best spots for smallmouth bass in the entire country. In the upper reaches, minnows do well. The Phillips midget killer, a small top water lure with propellers on the front and rear is one of the best when the leaves start to drop from the trees.

Down below the junction of the Juniata at Clarks Ferry, the Susquehanna leaves little to be desired in the way of choice bronzeback fishing. The extreme width of the river and its many channels, drop-offs and rock ledges make it a paradise for those who like the antics of a hooked smallmouth. Fly rod fishing with hairbugs in dull brown tones is one of the favorite ways of taking fish in October.

On the Juniata, stone caddies are choice baits too. They call them "blue eyes" on the North Branch of the Susquehanna and pizzies down on the Juniata. Most fellows fish them on spinning outfits in the deep pools. A favorite trick is to cut off the dorsal spine with a pair of scissors to make the bait bleed ever so slightly.

The Delaware has been overlooked by most fishermen for fall fishing pleasure. It has fabulous smallmouth

numbers and a great lure is that small midget killer I mentioned earlier. The juvenile shad are heading seaward at this time of the year and anything that looks like a baby shad will take fish.

If you're from around the Philadelphia area, try the Schuylkill River. Most of the fishermen who utilize this waterway for fishing, do so in the summer and they are still fishermen. A bait or lure fisherman who spends a little time at it, should be able to pick up more than a few nice fish during this month.

If your favorite October fishing hole has been left out of this article, go out and give it a try anyway. A great time is guaranteed to be had by all.

My thanks to all of the Waterways Patrolmen who so willingly shared of their knowledge and time during the last six years and made writing "Fishing Outlook" a pleasure for me.

Editor's Note: Beginning with our November issue, George E. Dolnack, Jr., a frequent contributor to the Angler's pages will take up the task of providing our readers with a monthly "Fishing Outlook."

No stranger to Angler readers, George is a member of the Pennsylvania Outdoor Writer's Association and the Outdoor Writer's Association of America. His writings and photography have appeared in many state and national publications.



MR. THIEF, TAKE NOTE!

I believe in true sportsmanship and I do a lot of fishing for pike, bass, walleyes, and muskies. As you know, live minnows are very good bait for these fish and I always catch all my bait myself. I have a minnow bucket which has my name tag on it, but this does not mean anything to some other fishermen. As I catch my minnows and leave them in the bucket in the stream to keep them alive, someone else will come along and steal them. To me, this is not a sportsman. Another time I set out snapper hooks; the next day when I go to check them, I find them stolen. They will cut the line and take the hook. Again, here is not a true sportsman. So, I was wondering if it would be possible for you to put this letter in one of your future magazines, and maybe the one who has been stealing will read about it, and maybe the next time he starts to steal, he will stop and think about becoming *A True Sportsman*.

WILLIS HYLTON
Fredericksburg

We doubt it he's one of our subscribers, Willis, but we're printing your letter anyway—he's probably the type who would steal a copy of the Angler, as well! Ed.

"THANKS"

I'd like to take the opportunity to thank the Pa. Fish Commission for their work on the Big Spring FISH-FOR-FUN Area. The stone wing walls and other stream improvement devices have definitely helped the stream clean itself.

I would also like to express my opinion on the stocking of this stream. I feel that a future stocking program in the FISH-FOR-FUN Area would not only be unnecessary, but it would be also adverse to the "wild trout" population of the stream. It is true that a stocking program would increase the number of "catchable" trout but not necessarily the number of quality trout.

Like the Letort, the Big Spring does not need the "instant fish wagons" to maintain quality fishing. Why not take

the hatchery trout and put them in areas where creel return per license dollar is the important consideration.

Sincerely,
FRANK BASEHOAR

Thank you for your kind words relative to the stream improvement devices on the Big Spring FISH-FOR-FUN area. This work and development of parking facilities were accomplished by the Pennsylvania Fish Commission's Engineering Division. I'm sure they appreciate your recognition of their efforts. Currently the Big Spring FISH-FOR-FUN area is being managed with no stocking. At the time the area was established as FISH-FOR-FUN it had a very poor trout population but our management plan was to not stock and see if a resident population would develop. Members of the Fisheries Management staff surveyed Big Spring in late June and found a very nice population of brown and rainbow trout.

There is no question many of these fish, particularly the rainbows, were recruited from hatchery stocks, but they are, in all other aspects, stream resident, or "wild," fish. All of us in the Commission are pleased to see this population develop and it seems that a stocking program would be unnecessary. We are in agreement with you that hatchery trout could best be stocked elsewhere and we have no intention of stocking the Big Spring FISH-FOR-FUN.

Delano R. Graff, Chief
Division of Fisheries



SAD FATE!

We found this robin dangling from our prune tree one morning. We live about ¼ mile from Conneaut Creek in Conneautville, Pa. You may use this photo in your publication, if you wish, to show fishermen the importance of properly disposing of their fishing lines.

ELMER J. ANDERKO, JR.
Conneautville

WE WONDER, TOO—

Jeffrey was fishing with his friend Sam Moratori at Lake Jean in Ricketts Glen State Park when he caught a 12-inch black crappie on a spinning rod using a worm. The boy is real proud of this fish. So much so, that for the first time in his life he has offered to eat a fresh fish.

I think your program of issuing Junior Citations helps to make many youngsters avid fishermen the rest of their lives. I know that just telling my boy Jeff he has caught a trophy fish has stimulated his interest. It's, "When are we going fishing again, Dad?"

I have been a subscriber to the Pennsylvania Angler for the last five years, or so, and think it's a great magazine. One observation I have made is that it appears to me many of those so-called Junior Citation awards for musky, pike, bass, lack credibility. To see a boy or girl holding a fish almost as big as they are seems to me that someone else in the family has found a way to get their fish noticed. Like I said, *it's just my observation*.

GERALD J. KASKIEL
Sugar Notch

Gerald, we'd be less than truthful if we said that thought never occurred to us. But, since we do not insist on citation applications being accompanied by any notarized or sacred oath, we have no choice other than to accept them. If what we suspect happens now and then, i.e., adults "handing down" a fish just a bit too short for a senior citation to a youngster and a third party is drawn into the unholy plot as a witness, then the whole program has lost its value. Furthermore, at an age when youngsters should be taught sportsmanship, it's a terrible way to start them off in life by having them lie about a trophy they never caught. For their sake, I sincerely hope you and I are terribly wrong! Ed.

GOOD WORK, JOE!

I find that we all take our law enforcement officers for granted, and find fault with even those who do their job well. I had a chance to spend a day with our Waterways Patrolman, Joseph Kopena of Forest County. He's a busy man, but finds time to work with the young people. One morning last week, Waterways Patrolman Kopena, assisted by Waterways Patrolman George Jones of Warren County, and one of Kopena's Deputies, Richard Kinter, put on a cane pole program for the Cub Scouts of Tionesta. These three men took most of the morning getting ready for the boys, and then worked with the boys, answered

questions, etc. When it was over and they were leaving, all you could hear was, "Thanks, Mr. Kopena," from a happy group of boys, who really seemed to have a good time.

Later in the day we took a ride to Cooks Forest. We came to a nice little creek in a quiet area with signs along the drive reading, "Fish-For-Fun Area, for children under 12, and the handicapped." I found out it was stocked specially for them, and I asked who was responsible, as I thought it was a very unusual idea. Well, I found out again, Joe had worked getting it ready and was working for its approval. We hear so much about Joe being only interested in litterbugs and collecting fines, etc. Well, I found out in one day he's a big man with a big heart and we just don't give him as much credit as he deserves. The people of Forest County should be proud to have a law enforcement officer who really is as devoted to his job as Kopena is. Keep up the good work, Joe.

MARY LOU SWICK
Tionesta

NOTHING UNUSUAL!

I had a good laugh when I read in your July '74 issue in Leaky Boots about the fellow catching a carp and a catfish on a #3 Mepps.

Later that day, while trolling for bass on Lake Arthur in Butler County, I hooked a 12-inch catfish with a #3 Mepps hooked in the mouth also. I had another good laugh!

I would also like to say that the bass fishing Allegheny River has been the best this year than it has been for four or five years.

TOM LEGERSKY
Apollo

"DOUBLE" PLEASURE

Fishing to us is a double pleasure—*catching* and *giving*. Since we are not great fish eaters, we enjoy giving them to people who really like fish. You should see the look on their face when we hand them a stringer of nice crappies, or a large carp, or a nice bass! The Angler also gives us "double" pleasure—reading cover to cover and also a lot of fun every time it has a sketch in it by "Nick Rosato"—*that's my husband's name, too!* He always laughs and says, "Well, I see I made the Angler this month!" My Nick can't draw but he sure can fish! *He* is the #1 artist when it comes to *fishing*.

I would like to write to your Nick Rosato, the artist, and tell him how much

we like his sketches. Could I get his address? Thanks for the Angler. Good fishing—

PEG ROSATO
Pheonixville

"Our" Nick is quite a fisherman, too, Peg, in addition to his artistry. In case you want Nick to paint your Nick's portrait (wouldn't that be something?), his address is 509 Fairmont Ave., South Williamsport, Pa. 17701. He's a freelance artist—not a member of the Angler staff. Ed.

JUNIOR CONSERVATIONISTS—

Tioga County has a group of sportsmen to be proud of. It is known as the Pine Creek Junior Conservation Club. The club with three overseers, Jake Confer, Keith Connelly, and Irwin Niles, and 18 juniors ranging from 8 to 17 years in age. The boys' first aim is to restore Straight Run to some semblance of a trout stream. The boys asked the 3 overseers to take charge. The adults did the planning for the construction of 20 small dams and taught safety methods by felling trees across the stream at given distances apart, then removing small stones to allow the fallen tree to lie flat on the stream bottom.



Short pieces of plank are spiked to the tree trunk with a slope of about 30 degrees. The ends of the tree trunk are bedded in the sides of the stream and the bottom ends of the planks are weighted down with flat stones. It will have a deep hole below the tree trunk after the first high water.

I fished that particular place after it had been subjected to a couple light floods and took four nice trout out and lost two others. The boys are working on several other dams and when their present plans are completed, they will move upstream and start work on other sites.

Wouldn't it be great if we older fellows had the present day energy of those juniors? We need conservation-minded youngsters who are willing to perform the tasks like that Pine Creek Junior Conservation Club is doing around my old home area.

LEROY "SHORTY" MANNING
Norwood

"OUT OF SIGHT"

Being an avid hunter, it has only been recently that I became hooked on fishing. I am remitting your fee for a subscription simply because the information in the *Angler* is for the local enthusiast and contains information that is essential and directed for better creel limits throughout the state.

During all the years I have been hunting, I encountered numerous natural ponds which beavers and Mother Nature have created but never thought that any large fish would thrive in these impoundments. I may be several years late, but I am so glad that a friend lured me into a trip. You may have to travel a good distance from the nearest road but the excitement has no comparison.

I feel that it is a shame to force animals out of an area of their choosing for development, because only years of natural habitat allow fish to grow to a large fighting size. I am most grateful to have discovered something which everyone, regardless of age, can enjoy and relax for a short period of time and appreciate the real meaning of life.

Thanks to all of you who dedicate themselves to a natural way of enjoyment. I found something, which I should have discovered a long while ago. And, you should have tasted the fillet from the bass, they were "out of sight"!

Pa. has the most diversified fishing available only because your sincerity is directed to all who benefit from your "sweat" and consideration.

DON COLCHAGIE
Pittsburgh

Each month the *Angler* tells you where and how to catch fish. Some of your friends aren't so lucky — they're not *Angler* subscribers.

You can change that—lend them your copy and convince them to buy a subscription of their very own!



The bowfin, often called dogfish, is the lon

Taking A Closer Look

by Tom Fegely

Every once in a while scientists come across some form of animal life that was thought to be extinct. One such happening occurred in 1938 when a South African trawler hauled aboard a five foot long, 127 pound fish known as a *coelacanth*. This monstrous living fossil was thought to have become extinct some 50 million years ago.

Pennsylvania, too, has some "living fossils" in the form of the bowfin, garfish and sturgeon. Fossils sandwiched in the rocks of Europe, Asia and North America attest to the antiquity of these carryovers from the past. Bowfins and gars rank among the most predaceous of freshwater fish and are seldom given the respect due them because of their unpalatability and their habits

of feeding on young gamefish.

Sturgeon, on the other hand, are recognized for the quality of their flesh as well as the roe which is marketed as caviar. Before the mid-nineteenth century, however, sturgeon were trapped in the nets of commercial fishermen and their flesh was discarded along the shore to rot. By far the largest as well as the most ancient of Pennsylvania's "living fossils", three species of sturgeon still dwell in waters open to Keystone State anglers.

Strange and mysterious, the bowfin, garfishes and sturgeons are known to most people in name only. Each is unusual and interesting enough to be deserving of separate "Closer Looks".

THE BOWFIN (*Amia calva*)

Call him mudfish, grindle, dogfish or bowfin—anyone who's ever tangled with one of these survivors of prehistory can't help but admire its accountability when hooked. Perhaps it is this pugnacious personality along with an unselective appetite that has enabled the bowfin to outlast other species which swam with his look-alike ancestors in some ancient sea.

The bowfin is unique in that it is the only surviving representative of its genus (*Amia*), family (*Amiidae*) and order (*Amiiformes*) in American waters. It is characterized by a large head and mouth with strong, sharp teeth, a long, soft-rayed dorsal fin and a broad, rounded tail fin. A pair of barbels point forward in the area of the nostrils.

Like the garfish, the bowfin is covered with hard, enameled scales except for the head, cheeks and gill covers which are scaleless. Its coloration is best described as a greenish-brown, darker toward the back and



survivor of a primitive family of fish. The "eye spot" at the base of the tail identifies this specimen as a male.

blending into a white belly. Males are distinguished by a prominent black spot at the base of the tail which is ringed in yellow or orange during the breeding season. Females have plain spots on the tail or the spot may be completely absent.

It was from fish such as the bowfin that amphibians gradually adapted to life on land. For in addition to functional gills, the bowfin is also capable of gulping air into a special bladder which functions somewhat like our lungs. Thus it can survive in stagnant or muddy waters where other fish could not draw sufficient oxygen.

It is most unfortunate that the bowfin's flesh is not palatable, for in fighting ability it ranks alongside the bass and pike. It is not a large fish, however, growing to about two feet at maximum and averaging 18 inches. Most bowfins are caught while fishing for other species, especially when live bait is used. This is not to say that they cannot be taken on artificials, since their voracity compels them to strike at practically anything that looks edible.

Strictly carnivorous and solitary, the "dogfish" (as it is often referred to in Pennsylvania) gains few friends by competing with other gamefish such as bass and walleye for food and by preying on the young of many game species. One scientific study in which the stomach contents of 131 bowfins were examined revealed that gamefishes composed about 60% of their diet, forage fish another 17% and crayfish, frogs and insects the remainder.

Breeding takes place after dark from April to June. In weed-covered shallows, the male excavates a crude bowl-shaped nest measuring a foot deep and two feet or more across. When ready, he courts gravid females by encir-

cling them, one at a time, in the area of the nest.

After several females have spawned, the male begins an eight to ten day vigil. Like bass and bullheads, he hovers above his aquatic nursery and fans the eggs, keeping them well aerated and free from silt. From the time the eggs hatch until they can swim about, the helpless larvae lay on their sides in the nest or attach themselves to nearby rootlets by a special adhesive organ on the snout. After nine days the youngsters are about a half inch long. Now the male serves as shepherd for the wandering flock, protecting them from predators until they reach a four inch size. At this time the miniature bowfins individually swim off and seek cover, the beginning of their solitary existence.

Bowfins inhabit Lake Erie and have been taken from the Allegheny, Susquehanna and Delaware Rivers. They prefer warm, sluggish rivers and the shallow, weedy regions of bays and inlets.

Removed from water, a bowfin can survive all day in a cool place while wrapped in a damp sack. Its functional air bladder along with the general toughness of the fish itself enables it to survive under conditions where other fish would perish.

Perhaps this is only a small example of the adaptability of this little known resident of Penn's waters. He has been around for eons of time, lurking in the weed-infested shallows of ancient lakes where gigantic dinosaurs drank. If for nothing else, the bowfin must be respected for having survived changes so drastic that others similar in habit and appearance completely vanished, to be found only as *true* fossils beneath the earth's crust.

Next month we'll "take a closer look" at the garfish family.



When Fishermen Stalk The Most Dangerous Fence

by John Weiss

When first I felt the stinging voltage running its course through my body, my eyes crossed, my toes cramped, and everything in between protested vehemently!

Seconds later I was lying on my backside, watching billowy cumulus clouds drifting lazily by. Remnants of a distinct tingling sensation offered an unnecessary reminder of what had happened and I tried to shake off the noxious feeling. Violent cursing then followed, words that would surely make even callous men shudder. After pulling myself first to my knees, then to an erect and wobbly stance, I retrieved my flyrod which was lying in tall grass some ten yards distant.

Not every encounter one has with an electrified fence proves so traumatic, but in this instance there had been extenuating circumstances. For one, it was my first such experience, occurring quite a few years ago when electrified fences were first introduced to farmers and there were few others who knew about them or how to recognize them.

I had received permission from a landowner to cross his property for the purpose of fishing a stretch of a small river (I vowed not to reveal the location). I was advised that I might want to take a shortcut to the river's bank by cutting across a hay field and then slipping over the single strand wire fence that bordered a pasture where Herefords were grazing. From there, it was only a short distance across open ground to the water's edge.

The rancher neglected, however, to pass on the most important tip of all—that coursing through that single strand of wire were approximately 1600 volts of low-amp, nondiscriminating white fury. Perhaps he assumed I already knew about such matters. Obviously, I did not.

To add to the immediate and overly displeasing result that was to follow, slogging across the early morning, dew-drenched grass had thoroughly soaked

my boots, socks, trousers and shirtsleeves. From the waist down I possessed not a square inch of dry skin.

To say that the hot wire literally picked me up and threw me down would be an understatement, at least if my crumpled body had a say in the matter. And, until you experience the ravages of an electrified fence one time for yourself, no further descriptive phraseology can possibly do justice to the ill-fated event.

My senses regained, I probably could have jumped the fence to reach the other side as it was a single wire affair suspended only about 30 inches from the ground. Or I might have even bellied my way under it. But a second glance at the wire, held to each fence post by a white porcelain insulator, served as a grim reminder of what might happen again. Since my luck was obviously not running well, I decided to backtrack to a gate located at the opposite end of the pasture, a hike of about half a mile.

The following year I had my second experience with a hot wire fence on another farm on which I was flyrodding

for panfish on a two acre watering pond. The pond was situated in the middle of an expansive pasture and as I drew near I immediately spotted the electrified fence. Vividly recalling what had happened the previous summer, I approached with extreme caution.

My first act was to prop my flyrod against an old stump and set down my small box of flies and bugs. Easing to within about two feet of the fence, I stopped, extended a single finger and very quickly brushed it against the wire. *Nothing!* Good, the fence was cold. I supposed the electricity had been turned off because the livestock were grazing another pasture down the road.

As always, I'd set my rod and other tackle on the other side of the fence, push the wire strand down with the palm of my hand and ease one leg over at a time. Reaching out, I grabbed the wire with gusto and immediately knew I had made a very bad mistake.

How far the jolt of current threw me I am not certain, but I fully suspect I went straight up for a goodly distance before



leveling off and commencing my lateral flight.

I later learned that this fence was charged with a *pulsating current* that is sent through the wire in "spurts." The arrangement is used most often by farmers and cattle raisers who are pasturing a large number of calves. In the event a calf curiously bumps the hot wire with a wet nose and is shocked, his grief will only last a few seconds, whereupon the current automatically shuts off momentarily until the following spurt of electricity is sent through the wire. I had the misfortune of "testing" the wire *between* pulsations and mistakenly assumed the power was off.

It's not at all unusual these days for fishermen and other outdoorsmen to encounter electrified fences. Especially in areas where population density is high or where superhighways abound with speeding traffic, electrified fences are the only real insurance a landowner has that his livestock will not inadvertently roam into forbidden or even dangerous regions. And in other regions where large tracts of real estate are common, electrified fences enable farmers to confine animals to restricted areas so as not to have an entire herd widely scattered about.

Good fishing often exists near the perimeters of livestock boundaries. There are, first of all, the huge number of farm ponds where anglers are increasingly finding fishing opportunities. Then there are the countless streams and rivers across the countryside cutting through private lands. In many cases, "easements" have been taken to permit fishermen access to the water. And in just as many cases, if easements are in rural areas, there may be electrified fences to prevent livestock from venturing too close to the water's edge (especially if it is deep or if it possesses a fast current).

If your fishing activities take place in any of these locations just named, or if you combine your fishing with camping, backpacking or hiking, there may be many times each year in which you come close to meeting up with fences carrying electrical voltage.

In any of these cases, being able to identify electrically-charged fences and knowledge of their various characteristics is important.

Most electric fences these days take their orders from an innocent looking box that appears to be about the size of a loaf of bread and is painted either gray or red. This box can usually be found positioned near a corner where adjoining fence lines meet, at one end or the other of a straight line fence, or sometimes near a gate.

Some of these charging boxes operate on six or 12-volt batteries, especially if



the farm is small in size and the area of containment for livestock encompasses less than 25 acres. The great majority of larger farms and ranches, however, use conventional 120-volt alternating current. A transformer alters the 120-volt alternating current to 1600-1800 volts of low-amperage direct current to insure that no fatal harm befalls victims who venture too close, be they man or beast.

One terminal of the "hot box" is grounded to a metal stake driven into the ground and the other terminal is connected to the hot wire. Sometimes the hot wire is a single strand affair positioned about 30 inches off the ground. Or there may be twin wires, one 15 inches off the ground and another between 30 to 36 inches high. At other times, there may be a single hot wire seemingly secreted among numerous barbed wire strands. The hot wire, in this case, is not purposely camouflaged — *it just seems that way*, since there are so many strands strung between each fencepost.

Often you may fail to detect the presence of a single wire, especially if the light is poor and high grass or brush offer concealment. Being on the lookout for a row of fenceposts may not help in detecting the presence of a hot-wire. This is especially true when only the single strand variety is employed since the fenceposts can be placed quite a distance apart. If trees and other heavy cover are present, an unsuspecting outdoorsman might easily blunder right into the wire.

This was exactly the case when my friend, Harold Mathis, was fishing a Keystone stream for smallmouth bass late one night last summer. He had worked several pools in the pitch black of night and after a while decided to take a break. His intention was to scramble up onto a nearby bank and pop the lid on a

cold drink he had stowed away in a pocket of his fishing vest.

Harold remembered seeing a nice grassy bank only the week before and it would be, he thought, a nice place to eat lunch sometime. And it would do just fine for sipping his drink right now. Perhaps he'd even take a few puffs on his pipe. Stepping out of the water where he guessed the grassy bank was located, he plodded through a narrow patch of brush that bordered the stream bank. The clearing with the grassy bank should be just ahead.

The next step Mathis took forward was a very eventful one. ZAP! The hapless angler's shoulders cringed and his right hand, with which he had been parting the way ahead of him, went numb! There was no way for him to have guessed the wire was there, much less seen it.

When you come across a row of fenceposts, during daylight hours, one sure way to determine if the wire is used to carry current is by examining the posts for the presence of white or brown porcelain insulators. Sometimes insulators may even be made of clear glass, and sometimes a short length of hose or rubber tubing may also be used instead. None, I have found, can be seen well after dark.

When a victim standing on the ground makes contact with the wire, he "completes the circuit" and learns his lesson for the day. For some, one such lesson seems to be enough to last a lifetime. Others, like me, don't learn so quickly. I have received six hard lessons, each of which I am able to recount with unerring accuracy!

Fishermen are not the only victims to fall to the hot wire fences. My neighbor, Dave Workman, is a bird hunter as well

as fisherman. During the summer months he often takes his English setter with him as a companion on fishing trips. One riverbank offers superb crappie fishing, so Dave takes his lunch, perches on the bank, and usually manages to fill his stringer in short order. The setter bounds around the nearby fields, sometimes takes a swim if the weather is overly warm and eventually finds himself napping at Dave's side.

Last summer Dave and his friend were cutting across a field to the riverbank when a covey of quail flushed near the edge of a wheat field. The birds angled toward a corner section of the field where they set down. Despite his calling, Dave's dog bounded across the field after the birds. Dave gave chase not far behind.

When Dave neared the corner section, he spotted the setter pointing one of the singles; but this was no ordinary point. The setter's body was on one side of the fence and his head was protruding through the wire strands. Six inches above his head was a single wire that was affixed to a nearby fencepost via glass insulators. The only solution, Dave reasoned, was to creep up behind the dog on hands and knees, grab him by the leg and pull him back. It didn't work.

Dave had scarcely gotten to his knees when the single exploded into the air, the dog raised his head only slightly and "buzz", a charge of current from the wire hit both ears. Crying, the setter fell flat on his belly with all legs outstretched!

The dog could only take a situation like this to mean that he had done something very wrong and was being severely punished. Added to the unfortunate experience was the fact that the dog was a youngster still in training and not yet finished. Whether he will ever have an active interest in quail hunting again is not certain, but I wouldn't place my money on it.

Whenever I seek permission to fish on or near private land, I always inquire whether the landowner utilizes electrically charged fences. Perhaps the lessons I have learned during my encounters with electrified fences have been more traumatic than those had by others. As a result, I have always been willing to make as many boot tracks as necessary to gain access to a fenced-in area through a gate rather than attempt to cross a live wire. I simply have too many bitter memories lingering in my mind as to what can happen when things aren't going your way.

It is possible to carefully step over a single strand electric fence, though, if it's rather low to the ground and you feel especially brave. But, if you lose your balance for just a second, you've had it! Or, you may have perfect balance but be

watching your hands, only to have a leg brush the wire. The effect is something akin to tripling the sensation you get sticking a finger into a "hot" light socket!

If you happen to lose your balance for just a moment and brush against the wire ever so slightly, the startling shock may be just enough to cause you to lose total balance and fall smack on top of the infernal thing with your full weight. I'm not able to offer guarantees on many things in life, but in this case I can assure you of at least one somersault in mid-air after which you pick yourself up off the ground in a highly disheveled state.

There is absolutely no intelligent reasoning one can rely upon when he comes in contact with a hot wire fence. Most often you obey your natural instincts and withdraw your arm or leg quickly, thus breaking the circuit. But sometimes this is easier said than done, as the current may actually grip you and hold you securely—an experience you'll not forget for many seasons to come. Remember, these fences are designed to contain 800-pound steers with tough hides!

One time I was stepping over a fence that employed an upper and lower strand of barbed wire with a third, middle strand of hot wire, a very effective combination. With an open palm, I pushed down the top strand and started to lift one leg carefully over when a wet, flapping pantleg came in contact with the hot wire.

My natural instinct, which was totally wrong but uncontrollable, was to quickly use my free hand to push the hot wire away from my leg. That smart trick caused me to receive juice simultaneously through my leg and through my hand. As you can well imagine, it took more than a short while for me to calm down. A jolt of 1800 volts has quite an unnerving ef-

fect upon even the most stable of men!

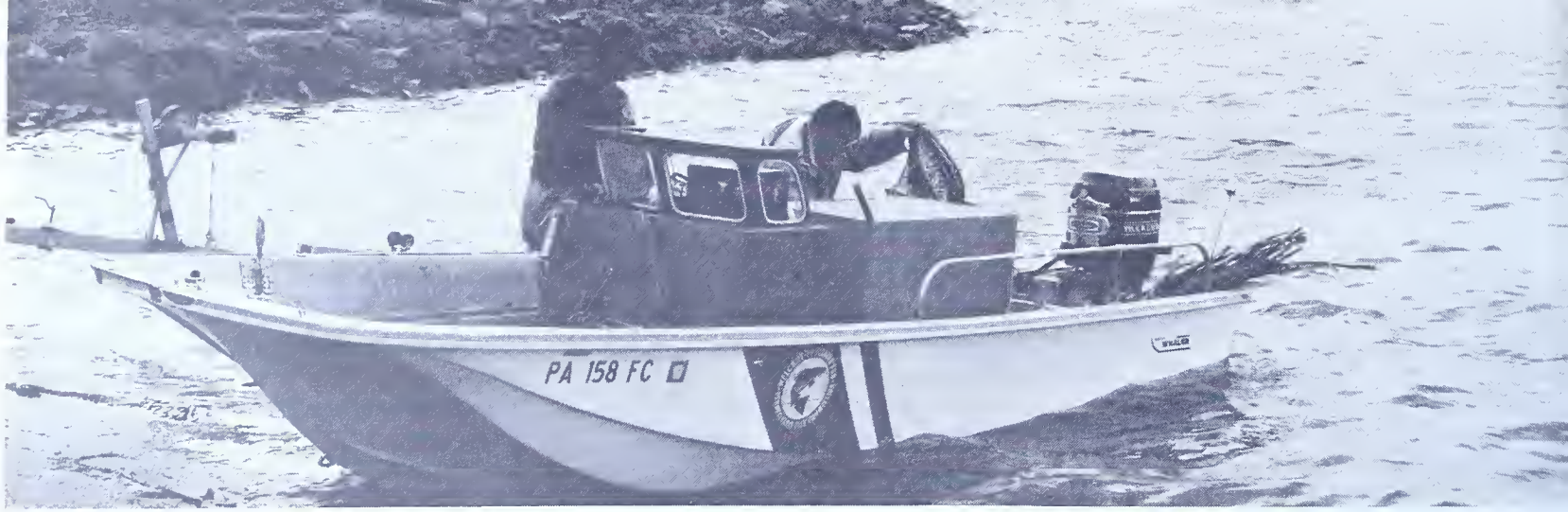
Since electric fences are here to stay, the responsibility of guarding against such displeasing encounters with them rests entirely upon *your shoulders alone*. When you ask permission to use private property for fishing, or to cross over private property to gain access to public fishing waters, inquire where electrically-charged fences are located and the best way to cross them. You may be required to use gates that are some distance away, and this is always my first choice. However, if you have real gravel in your gut and grit in your eye and the landowner has no objections, you may elect to cross the hot wire by belly-crawling beneath it, or high-stepping over it. Of the two, going *under* presents less opportunity of losing your balance.

When fishing with other family members, children should be instructed to keep away from *all* fences. Don't expect them to be able to discriminate between "hot" and "cold" ones, and then keep an eye upon them continuously. Small children may well suffer a more severe shock than teenagers or adults.

For elderly fishermen and other outdoorsmen, I would strongly suggest that you avoid completely any areas enclosed by electrified fences. There is no telling whether a jolt of electricity coursing through one's system could do a bad number on a weak heart or trigger some other critical body reaction.

There is absolutely no way you can pit your body against an electrified fence and ever expect to come out winners . . . no way at all! Stalk that fence with the same care and respect you would give any potentially dangerous game animal and you'll experience few problems. Do otherwise, however, and you'll likely arrive home at day's end wishing you had never gotten out of bed that morning.





Bill Carns and Paul Drumm stow catfish trapping gear on their boat at the Torresdale Access in Philadelphia.

Traps Beneath the Delaware — by David Thompson

This May morning was chilly and windy as Bill “Pappy” Carns and Paul Drumm climbed aboard the 16½-foot Boston Whaler for another day of catfish and bullhead trapping on the Delaware River. They hoped their traps would contain the 3,000 brown bullheads they needed to meet their quota. The fish were scheduled for stocking in community ponds throughout Southern Pennsylvania to provide angling for thousands of city-bound youth.

Carns and Drumm, fish culturists who work for the Pennsylvania Fish Commission, are normally based at the Huntsdale Fish Cultural Station in Cumberland County. But come spring they become *rivermen* for approximately six weeks. Their assignment: Trap catfish and bullheads for community ponds as well as the Commission’s Cane Pole Program.

With trapping equipment and lunches stowed in their proper places, Carns started the 80-horsepower outboard motor and headed upriver from the access area at Torresdale Park in northeast Philadelphia. As operations chief of the Catfish Trapping Project since 1970, he has come to know the Delaware from several miles below Torresdale north to Bristol quite intimately. He knows as well as anyone where and how to trap Delaware “cats.”

“We’ll head up to line 10 first, and work down,” he said, squinting against wind and spray. Number 10 was the trapline laid farthest upriver along the New Jersey side. Nine other traplines were spaced throughout the river. Most of them were on the Pennsylvania side down to the vicinity of Pennypack Creek.

“Each trapline is 600 feet long with 10 traps,” he explained, after slowing down to steer into a swell made by a tanker heading toward Philadelphia. Although the seaworthy Boston Whaler now moved at a snail’s pace, the swell crashed over the bow into Drumm. He shouted as the cold water drained down his hip boots.

Both trappers were wearing rain gear. They had learned from experience that the Delaware can become rough, particularly during a stiff west wind.

“A wind out of the northeast makes waves in all directions,” Carns commented. “A boater must watch everywhere or he may get swamped.” During his first spring trapping the river, he used a 16-foot flat bottom

boat with a 20-horsepower outboard. But it was too small to be dependable in rough weather or when a larger boat made swells in the river. That spring he did some mighty fast bailing.

“The first thing I do at the beginning of the trapping season is contact the Coast Guard about the tides,” Carns said as the boat cruised closer to a power generating plant. Steam from the plant’s tall stacks was snow white against the grey sky and rushed downriver with the wind. It seemed an unlikely spot to trap fish.

Carns continued: “What I learn from the Coast Guard is what time low tide is on the day we want to lay the traplines. We always lay them at low tide. If we didn’t set them then, they might be up out of the water when low tide occurs. A trap that’s not in the water won’t catch many fish.”

Using one of the boat’s seven-foot oars, the trappers locate water eight to 10 feet deep which is the ideal depth for trapping bullheads. They position the lines so the lines follow a shelf in the river. The 600-foot lines are held on the bottom with an 80-pound weight at either end. The lines are laid roughly parallel with the riverside.

A trapline normally remains in its original location for the entire season. No buoys or other water markers are used to identify the traplines. Instead landmarks are carefully noted so that the trappers can relocate the traplines when it comes time to check the traps two or three days later.

Their fyke traps were handmade from wood from South America and nylon by Bill Brinkman. He formerly worked at the Commission’s Torresdale Fish Hatchery which was sold to the City of Philadelphia many years ago for a recreation area. Now Brinkman is superintendent of the nine ponds and surrounding land open for public recreation. It was he who taught Carns how to trap the Delaware for catfish.

Coming down to meet the river were large lawns from spacious homes. Here Drumm pointed toward shore. “I believe it’s right out from that big tree,” he said. Carns steered toward shore and put the motor in idle. Meanwhile Drumm picked up a grapnel with a long rope attached and heaved it toward the tree. With the grapnel on

continued on page 21



Paul Drumm, left, is retrieving grapnel which is used to locate the "trapline" on the river bottom. Bill Carns is lifting out a Fyke trap containing about two dozen brown bullheads, below, while Paul Drumm feeds oxygen to previous trap load, above, which is transported to shore in a large live box.



Sucker Bait

by Fredric Doyle



There was a gentle tug on the line as I twitched the light fly rod. Not a smashing lunge like that of the thirteen-inch brown trout that I had caught a few minutes before, but a soft nip, a gentle nudge at the small minnow that I was using for bait. "Chubs!" I thought, as I examined the chewed-up minnow. "Let them finish it off before I put on a fresh bait."

The bright October sunlight glinted on the rippling stream at the head of the pool as the line drifted into deep water. Another tug. "Snagged!" The tip of the three and a half ounce fly rod dipped toward the surface of the pool that reflected the autumn colors of an overhanging maple.

Snagged Yes, I was snagged to a good trout. The leader cut a seam through the floating leaves, then stopped. The line, now tight as the string of a guitar, throbbed and vibrated as the fish bored into the bottom. After a breathless moment there was a flash of gold as it finally let go and streaked into the shallow current. Having left my net in the car, I eased the fish toward the bank. Now, breathes there an angler with soul so dead whose hands do not tremble as he precariously ends a battle with a fighting fish. My heart started beating again as the flopping fish finally lay still on the grassy bank. It was a fourteen-inch *white sucker*.

Even considering the margin of truth to which all anglers are entitled, I hesitate to report this incident. A fourteen-inch white sucker . . . caught on a No. 10 burr hook . . . with a small shiner for bait! This prompted further investigation concerning suckers. First, angleworms, which are considered standard sucker bait, are a temporary spring diet. High waters bring an abundance of them to the hungry fish; but, as the waters recede, the suckers return to their more normal diet of small crayfish, hellgrammites, aquatic larva and plant life. Also grubs and terrestrials of all kinds vary their diet. This fare is vacuumed off the bottom with their rubbery snouts.

However, my experience with sucker bait has been

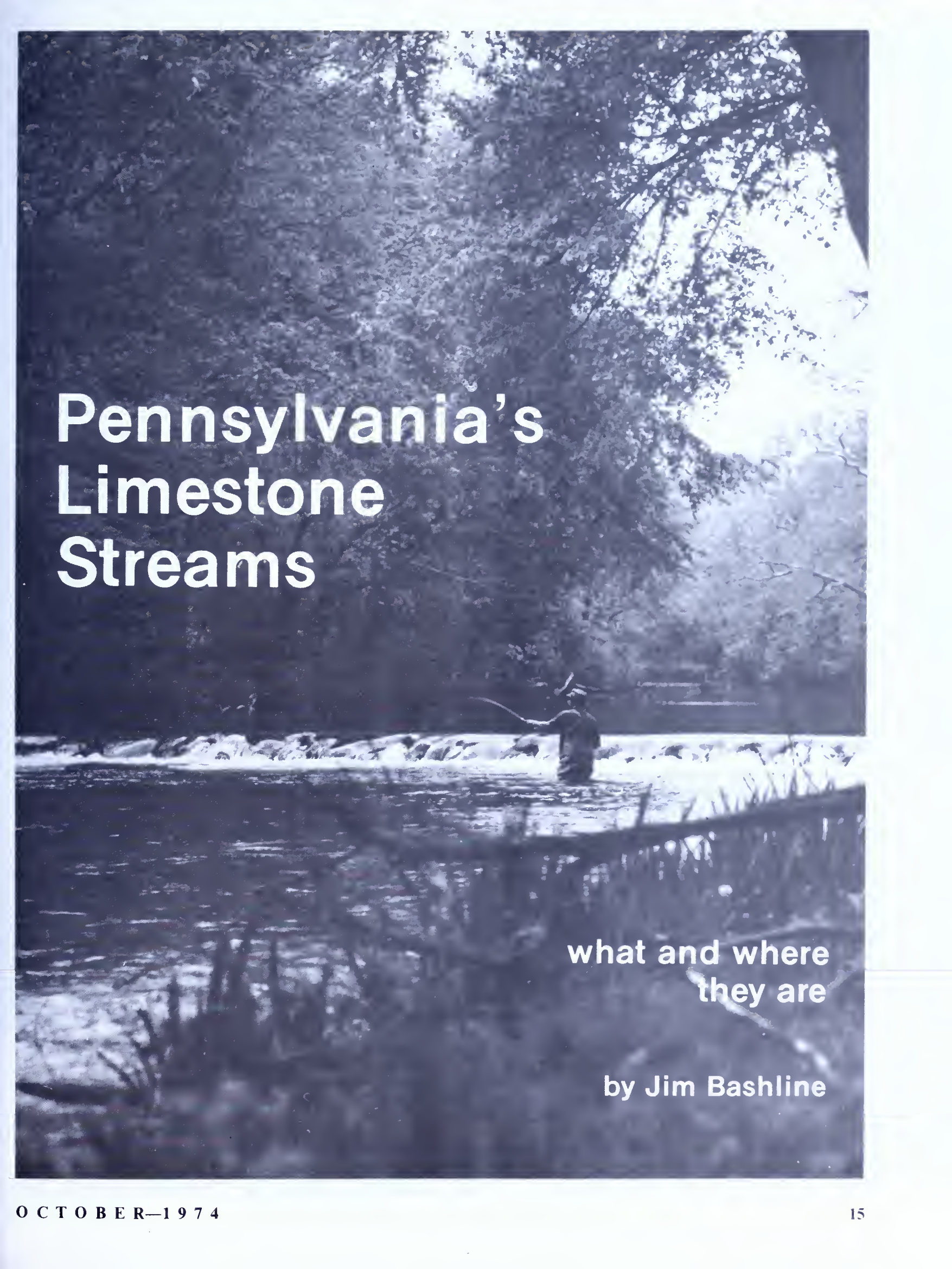
limited almost to angleworms of the little red variety, threaded on a No. 6 or 8 hook with the point well covered. Contrary to a trout's vicious strike, a sucker looks over its bill of fare. It sniffs the bait like a spoiled brat at the breakfast table, then rolls it over before nibbling it down. Sometimes it gets snagged during this routine. Mr. John Crowe, who, until recently occupied the chair of the "*OLD ANGLER*" of the Johnstown Tribune Democrat contended that anybody could catch a trout, but it took a smart angler to catch a sucker.

Way back when I used to douse my angleworms with anise oil and oil of rhodium, the aroma spread far and wide, and while it may not have lured suckers to my bait it did not repel them. One bait, those yellow-banded worms which we dug close to manure pile, were usually rejected. But with or without tainted lures a sucker is attracted to a baited hook by its sense of smell rather than by sight.

The extended trout season in Pennsylvania is a further inducement to autumn sucker fishing although I have enjoyed this sport for many years. After the first frosts and fall rains, suckers become more active. The person who says that a stream sucker fights like a worn-out rubber shoe has never caught one; especially on a light fly rod. While we cannot get particularly excited about meat fishing, a white sucker, also known by a variety of local names, when filleted and baked, broiled or fried equals or excels the flavor of the \$2.00 a pound (almost) commercial fish such as ocean perch, pollack, or cod.

Bones? Yes, nature has endowed the sucker with a liberal supply, but nobody seems to cry about the wishbones of a pickerel or a shad!

On the other side of the baitbox I am a sucker for a day along a meandering meadow stream, shaded here and there by the autumn gold of a hickory, or the flame of a red maple. Blackbirds chattering among the willows as they gather for the fall migration. Sandpipers tilting nervously on sandbars as a red-tailed hawk cuts circles in October's bright blue sky . . . irresistible *sucker bait*.



Pennsylvania's Limestone Streams

what and where
they are

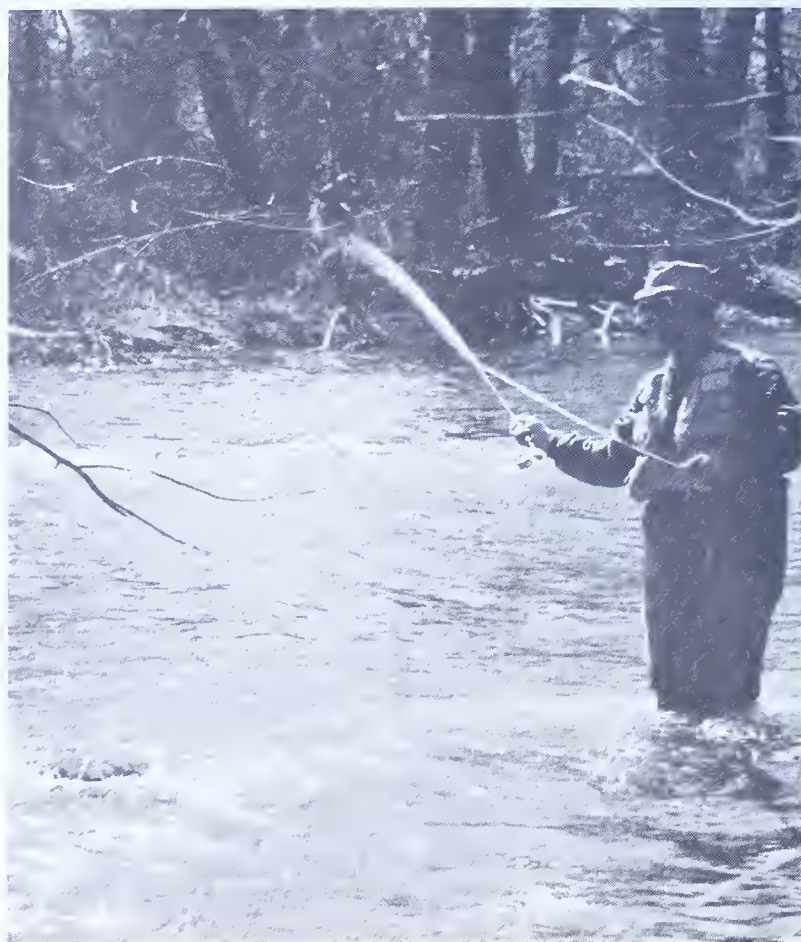
by Jim Bashline



The limestone streams of Pennsylvania hold a special allure to the eastern trout fisherman. They have had their praises sung in all of America's leading publications for over 100 years. A number of hard cover books have had their beginnings and endings on the Yellow Breeches, the Letort, Big Spring, and Falling Spring Creeks. It has become a status symbol sort of thing for any fly caster worth his tapered leaders to make at least one trip to the FISH-FOR-FUN stretch on the Yellow Breeches near the Allenberry Inn. The question most often asked of Pennsylvania fishermen by the nonresidents is, "The fishing on the limestone streams of Cumberland County, is it as good as the writers say?" The answer is yes, if you are willing to adjust a bit. From that rather ambiguous beginning, allow me to elaborate.

What is a limestone stream? After addressing that question to a dozen water-oriented biologists and three dozen fishermen I still have no concrete definition. The general consensus seems to be that if the water flows over limestone structures or through soil that is laced with limestone deposits of varying degrees, it can be called a limestone stream. In the central part of the state, we have such waters as Penns Creek, Spring Creek, and Spruce Creek that are also known as limestone streams; but they don't begin to have the lime content that their southern counterparts: the Letort, Falling Spring, or Big Spring Creek. The general character of limey water is that insect life is heavy, with a plentiful supply of freshwater shrimp and sow bugs. There are myriad mayflies too, but for some reason they do not grow so big as do their northern cousins in the freestone water of the Poconos or northcentral Pennsylvania streams. There are practically

" . . . most landowners will grant permission to fish their water . . . they just want to know who's there."



no green drakes, for example, in Cumberland County, although they certainly do well in Penns Creek.

While not so weedy or as food-laden as the Letort or Big Spring, it is the Yellow Breeches that raises the eyebrows of most visiting anglers when Pennsylvania limestone water is talked about, and particularly the FISH-FOR-FUN stretch. The lime content of the Yellow Breeches is not so rich as it is on other streams but rich enough to allow for good trout growth and excellent fly hatches.

Some sort of mayfly hatch occurs throughout the year on the Yellow Breeches. Without being specific, the flies to use run from bluish-grey in the early part of the season (which can be as early as February) to very pale flies, notably the white fly (*Ephoron leukon*) from late August through early September. During the middle part of the season, the fish will be seen rising all day long at times and tiny black and brown ants are probably the best bets.

Above and below the fly fishing water, most of the Yellow Breeches is open fishing; that is, any sort of legal tackle can be employed. There is a lot of posted land on the Breeches and it's merely good manners to ask permission to fish if you happen to be a stranger to the area. The reason most of the "NO TRESPASSING" signs are up is because of a few thoughtless anglers, who cast sandwich wrappers and other debris about. The Yellow Breeches flows through a lot of heavily populated real estate and fishermen angle there at the landowner's pleasure. But, on the brighter side, most landowners will grant permission to fish their water. They just want to know who's there. Can't blame them much for that.

In the early spring months, shortly after the season

opens, the trout of the Yellow Breeches are very much like trout anywhere. They are fond of wiggling worms and artfully maneuvered minnows. Salmon eggs take their toll of trout too, especially the rainbows. After about the fifteenth of May the trout begin to act like they never saw a worm before and couldn't care less. They are looking to the surface for food and the angler who can adjust his technique to using floating flies and tapered leaders will do a better business.

Weighted nymphs do a fine job on all parts of the Yellow Breeches and especially on the fly stretch. I'd better mention that on the fly stretch *no trout may be killed unless they happen to be twenty inches long*. There is no closed season on this particular piece of water but no spinners or natural bait may be on your person while fishing there. I know it's sometimes tough to release an eighteen or nineteen inch brown or rainbow but you'll be surprised what it can do for your ego as a fisherman!

For visiting anglers, the management of the Allenberry Inn provides a parking lot that is well marked with a sign that says pointedly, "Fishermen Park Here". Again, we fish there at the landowner's pleasure, let's not upset them. It's a short walk to the stream and on almost any evening you will find a dozen or more fishermen there and several dozen trout rising. There certainly are enough fish to go around. But, just because they are there does not necessarily mean that you will catch them. My first experiences on the Yellow Breeches and the Letort (and the rest of the limestoners) was a disaster! I had been schooled on the freestone streams of Potter County and I looked upon any fly smaller than a sixteen as being almost worthless. The limestone trout are more used to

The author is shown below, tying one on (a fly, that is,) hoping his next cast will produce one for the record book!



looking at tiny flies than they are a number twelve Royal Coachman and if one is to have a measure of success, he must go small. A number sixteen is the largest fly that most dry fly fishermen use here and an eighteen would be considered about right. Twenties and twenty-twos are frequently used and some anglers go much smaller. Anything larger than a 5-X leader for dry fly work is out of the question. Oddly enough, they will take a fourteen or a twelve wet fly if fished slowly during a rising period and particularly just at dusk.

There are big trout (and I mean really *big* trout) in all of these streams — although to the western angler they may not look very productive. They are, for the most part, gentle, smooth flowing streams that require no more than a forty-foot cast. However, their residents are among the most highly sophisticated trout in the world and have seen just about every angling trick in the book. The Letort has given up ten-pounders and the silky looking Big Spring once produced a nineteen-pounder. Imagine something like that sucking in your dry fly! But make no mistake about it, fishing the limestone water is frustrating. Especially so when rising trout are all around you and nothing seems to be paying any attention to your efforts. That's what makes the challenge — and that's what keep fishermen from all over the world coming back year after year. The limestone streams of Pennsylvania are more like the chalk streams of England than anything we have to offer on this side of the Atlantic. They are certainly unique in America. Each generation of anglers has found them baffling, and at the same time fascinating. You will too.

Pennsylvania's limestone streams are unique in America.



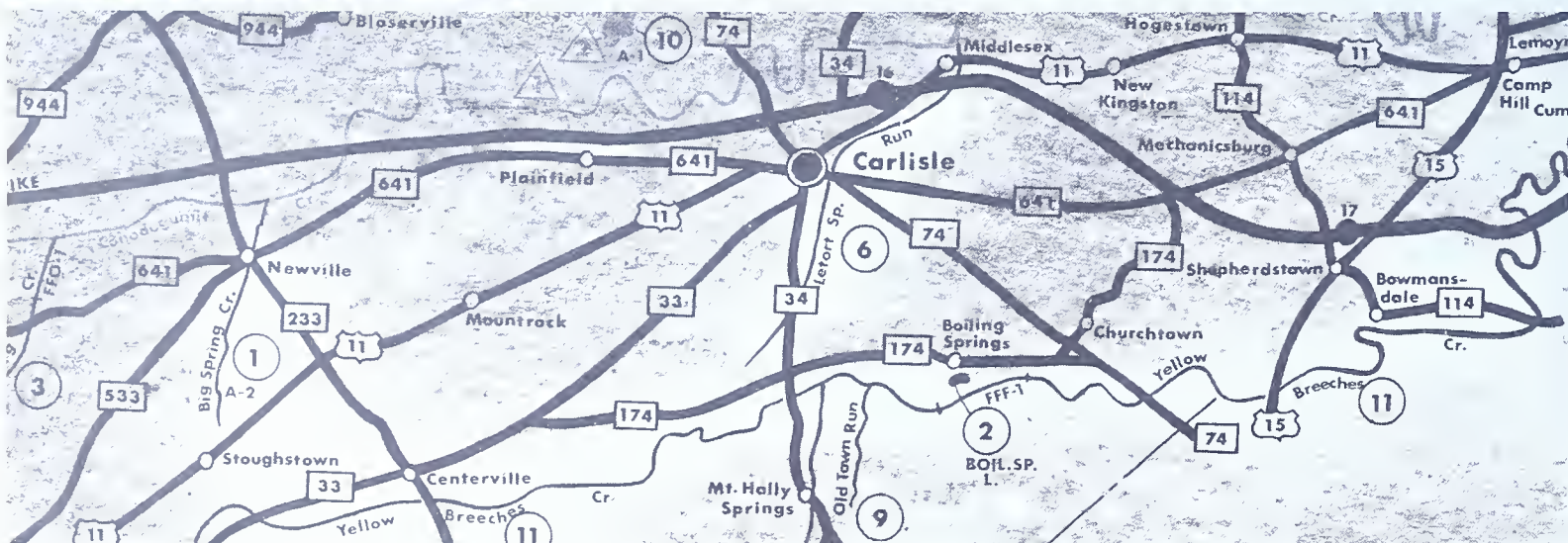
HOW TO GET THERE:

Falling Springs Creek: *If you're traveling on Interstate 81, take Chambersburg Exit to U.S. Route 30. Go east on 30, take first hardtop road to right to the stream.*

Yellow Breeches Creek: *Take Pa. 74 west, off U.S. Route 15, to Pa. 174, two miles from Allenberry.*

Letort Creek: *Take U.S. Route 11 to the Square in Carlisle, then turn east on Pa. 74 for six blocks and turn right. Letort Creek parallels this street.*

Big Spring Creek: *From Carlisle, take Pa. 641 south to Newville, turn left on first hard surfaced road. Sign there points to PFC hatchery; road parallels Big Spring Creek.*





Author and Mr. Bachman examine 65-year old fly rod.

Reflections on 77 "Openers"

by Joseph A. Subarton

Edward C. Bachman has got to be one of Pennsylvania's most ardent trout fishermen. When the 1974 trout season opened on April 13, Bachman, of Kingston, was on the stream that day. Now, you say, that's nothing unusual. So were thousands of other Pennsylvania trout anglers.

For Ed Bachman, however, it was the 77th consecutive year he fished on the opening day of Pennsylvania's trout season. That's right, the elderly gentleman from Luzerne County claims he has never missed an opening day of trout season since 1896. Furthermore, his relatives back up his claim. Bachman became 86 on February 2, having been born in 1888 at Gouldsboro (then Thornhurst) in Wayne County.

"I started trout fishing when I was eight. My first opening day was on the Lehigh River where I walked from my house. That's where I did most of my trout fishing as a boy, near home. In fact, I have fished the Lehigh 59 times on opening day," the veteran trout angler related. "In those days, all we had were native brook trout. There were no rainbow or brown trout, that I recall, or those palomino trout they stock now-a-days," he continued. "Back in those days, also, the creel limit was 50 trout."

Bachman also recalled the early fishing license fee was 60 cents.

Getting to trout streams in his boyhood days, the elderly fisherman recounted, wasn't easy. There weren't too many automobiles then and the roads weren't as numerous and as well paved, but he said he always managed to walk or get a ride to a favorite angling spot. As a teenager, Mr. Bachman worked in the ice industry, harvesting, storing and shipping ice from lakes in the Pocono

Mountains and became familiar with trout streams there. For some time, he also worked as a logger in Potter County and also got to know many trout streams in Northcentral Pennsylvania.

In October, 1905, when his family moved from Gouldsboro to Kingston, Ed Bachman got a job as a trolley car conductor with the Wilkes-Barre Traction Company. He retired 45 years later to the day, on October 14, 1950. Although he "drove" streetcars for thousands of miles during his 45 years as a conductor, Bachman never owned an automobile.

"I've never had an automobile, and I still have the best set of legs in the country for a man of my age," the senior citizen boasted, patting his thighs.

"Mr. Bachman," I asked, "if you never owned an automobile, how did you manage to get to trout streams on opening days and how were you always able to get off from work all those years on the opening day of trout season?"

He looked at me pointedly and replied:

"Sonny, I've had a lot of chauffeurs. I've fished over the years with judges, county commissioners, and lots of friends. They all wanted to go fishing on opening day with Bachman. They wanted to catch fish. I never had to worry about getting a ride, and I always managed to get off from work one way or another on the opening day of trout season. Lately, I've been fishing on opening day with my son, Walter."

Over the years, Mr. Bachman wrote notes about his trout fishing experiences and his catches in Eastern, North, and Northcentral Pennsylvania, and in New York's Catskills and Adirondacks. When he retired more than 23 years ago, many of those briefs were transcribed into a black-covered ledger which he has since diligently maintained. For instance, the book chronicles that 59 of his 77 years of Pennsylvania opening day trout fishing were on the Lehigh River or its tributaries — the Choke, Ash or Trout Creeks. Since his retirement, most of his opening day angling has been on the Muncy Creek, Lycoming County, or Kettle Creek in Potter and Clinton Counties.

"I've fished in 157 different trout streams over the years. I had a list of the creeks in another book that was destroyed in the flood," Mr. Bachman related. A widower, his residence in Kingston where he makes home with his sister-in-law was severely damaged by the Tropical Storm Agnes Flood of June, 1972, which inundated the Wilkes-Barre/Kingston areas.

"However, I was able to recover my trout ledger. I washed the flood mud from the book, and even though the ink ruined some of my notes, the book is still in pretty good condition," he said, handing the book to me for scrutiny.

I looked at some of the notations, and one immediately caught my eye. Mr. Bachman was 15 years old at the time. The simple paragraph read: "May 10, 1903, caught 21 trout (brook) from 10 to 16½ inches at Bradey's Dam." And, there was this one: "April 10, 1910, got 13 trout on dry flies. Cost of 6 flies was 25 cents, caught on Lehigh near Thornhurst."

continued on page 29

Sportsmanship in Action!

by Kenneth Aley

Waterways Patrolman
Potter County

One morning last January, I got up and looked out the window to find it snowing hard — the ground was covered with about eight inches of the white stuff and there were no signs of it stopping. In the process of shoveling about an acre of sidewalk later, I got to thinking a day like that could be better spent writing the Angler about a few of the men who had made my job last summer most enjoyable.

The men I have in mind are: Jim Anderson, Chuck Kanick, Harry Chitestter, and Art Hilde, all of Cross Fork, Pa. All of these men, by the way, are members of the CROSS FORK SPORTSMEN'S CLUB and the CROSS FORK CHAPTER of TROUT UNLIMITED, *and not one of them is native to Potter County!*

Jim Anderson and his family, "transplants" from the state of Maryland, are all avid fishermen and hunters. Last year Jim did a lot for conservation in Potter County. The first thing he did was to get signs from the Fish Commission — to be erected on the Fish-For-Fun project on Kettle Creek—then, he stained, painted, and erected the signs. Later, he helped me replace the wires and signs on each end of the project, after AGNES had destroyed the originals, then helped replace the cables at

crossover areas. After helping with the posting of this area, he also helped with the posting of the FLY-FISHING-ONLY project on Cross Fork Creek.

Last fall, Jim put in many hours organizing a stream improvement project on Cross Fork Creek. It took a lot of time and effort to make all the arrangements for materials, labor, and heavy equipment, but Jim handled it all and came up with a nice piece of stream improvement work *completed* on Cross Fork Creek. Now this wouldn't be unusual if Jim had nothing else to do, but he runs a restaurant and general store in Cross Fork, providing some good meals during the hunting and fishing seasons as well as stocking the best in hunting and fishing equipment for the thousands who visit Potter County each year.

Chuck Kanick, who migrated from Pittsburgh to Potter County, and Harry Chitestter, a Blair County "transplant," took it upon themselves to do an outstanding job on the FISH-FOR-FUN project. They spent many hours cleaning up a mud hole and making it into a parking place and lawn. Chuck and Harry see to it that this area is always clean and free of rubbish and litter. The grass that replaced the weeds, mud, and stone was mowed weekly and, at the end of the summer, it looked like a well-groomed golf course! These men, too, helped with the replacing of wires which AGNES carried away from the FISH-FOR-FUN project as well as signs along the project which were destroyed by animals, humans, and weather during the summer months.

Harry spent the entire summer on

the FISH-FOR-FUN and FLY-FISHING-ONLY projects on Cross Fork Creek. Seeing violations which could have been prevented, Harry asked me if he could become a Deputy Waterways Patrolman. I made the arrangements, Harry took his examination, and was commissioned a Deputy. He did a remarkable job—preventing many unintentional violations and at the same time arresting many willful violators. His being on the job in this area saved me many hours and, working without pay, saved the Pennsylvania Fish Commission *and all fishing license buyers* a great deal of expense!

Last, but not least, is Art Hilde, "imported" from Westmoreland County. Art is a genius with carpenter tools and is always available for any project. He has built many signs for the Cross Fork and Big Kettle Creek Projects; built gun cases which were raffled off to make many of the projects possible (and finer workmanship you won't see!); he set up a special children's fishing area in the town of Cross Forks; and, to top it all off, Art has a Cooperative Nursery *in his front yard!*

So, you see, I feel I owe these men a good deal of thanks for the assistance they've given me during the year. But, they weren't simply helping *me alone*, but everyone who fishes in Potter County, regardless of where they come from. This is what I call sportsmanship! And it just goes to show what can be done by a few dedicated sportsmen who don't wait for *the other fellow* to do the work. More should follow their example; a few men can do a great deal!

Cooperation is the key to success of the stream improvement work on Cross Fork Creek, Potter County.



Traps Beneath the Delaware

continued from page 13

the botton, and Drumm holding the rope, Carns put the motor in reverse and backed off slowly, dragging the grapnel over the river bottom.

"Got it!" Drumm yelled a few moments later. He pulled in the rope until the trapline, caught on the grapnel, appeared. Now began the work of checking the trapline's ten traps.

The brown bullheads vital to this program are extremely plentiful in the lower Delaware River—if the success of the Catfish Trapping Project is sufficient evidence of their abundance. The trappers have always been able to trap enough bullheads to fill all requests, including 1971 when the order was for 30,000.

Although the water quality of the lower Delaware leaves much room for improvement, the hardy bullheads thrive as if designed to occupy polluted waters. Because of their ability to withstand handling and live in water having little oxygen, bullheads are ideal for trapping and release in community ponds.

By the time they are actually stocked in the ponds, these fish are handled five times. That includes the period spent in the traps which swing along the muddy river bottom with the tide, tossing the bullheads into one another as if being swished around in a barrel. Nevertheless very few die before being stocked. Not many fish can match the indomitable spirit of the bullhead.

Now that the trapline was picked up Carns and Drumm proceeded to find the end of the line and the first trap. Carns lifted it out of the river and emptied about 25 bullheads into the boat's fish box which has a capacity of 650 bullheads.

By the time all 10 traps were checked, the box contained approximately 300 fish. When the box becomes crowded with bullheads, oxygen is fed into it from a tank carried on the boat.

"We've caught as many as 200 bullheads in one trap," Carns commented. "Sometimes we'll get enough from one trapline to fill the box. Then we return to the access area, where we keep the live car, and transfer the bullheads into it."

The live car, a wooden-slatted enclosure, looking like a flat bottom boat about 10 feet long with a small door on top, holds 2,500 bullheads. On days traps are checked, it

is kept tied to a buoy. When it is full of bullheads the cats are netted into the stocking truck and transported to the ponds.

The traps are about eighteen inches in diameter and four feet long tied at one end and open at the other. The open end acts as a funnel into the enclosed trap; when the fish enter the funnel and then the trap they're unable to work their way back to the opening.

Carns explained that bullheads prefer a dark place to rest on the river bottom where they also feed. Since the traps appear dark the cats tend to gather around them. As they enter a trap it becomes even darker and more appealing to other bullheads. No bait is used.

"Brown bullheads run best when the water temperature is 60 to 65 degrees, and this is when we trap them with greatest success," Carns said. He pointed out, however, that in this connection the term "run" is not associated with spawning which occurs later. "Actually, what happens is the bullheads become more active in the spring when the water reaches about 60 degrees. We call this activity 'running'." (The trapping begins the first Monday after trout season opens in April even though the water may not be in the 60's. Trapping ends around Memorial Day.)

In 1974, for the first time in many years, channel catfish were trapped in the Delaware in the same manner as the bullheads. The channel cats — 600 of them — were stocked in Stover's Pond in Lebanon County as an experiment. This species normally starts running in late June; however, Carns and Drumm trapped 225 by late May in 1974. The channels they trap range from 12 to 22 inches, weighing up to five pounds.

A hundred bullheads weigh an average of 70 pounds. It is cheaper to obtain them through trapping than raising them, Carns said. In fact, in 1973 he and Drumm stocked 40 community ponds with 27,000 bullheads at a cost of 27 cents per pound.

"The majority of ponds we stock are right in the cities where people can walk to them," he said when the last trap was pulled. "This spring (1974) we're scheduled to stock approximately 22,000 bullheads in 32 ponds in 20 counties. That includes Union Terrace Pond in Allentown for the Cane Pole Program for the kids."

Without a doubt many youngsters in Pennsylvania's cities are enjoying fishing for these catfish thanks to the Catfish Trapping Project on the Delaware River.

Bill Carns transfers netful of wiggling bullheads from live box aboard trap boat to live "car" holding facility.



"This is the Captain Speaking"

by Capt. C.E. Leising USCG (Ret)

Director

Bureau of Waterways

To some, the mention of our Waterways Patrolmen and their Deputies conjures visions of secret police hiding along our waterways to pounce upon a fisherman or boater the minute he violates any one of a million laws and regulations written to spoil everyone's fun. To a larger number, by far, they have become well known as a "friend-in-need" in every sort of predicament that can possibly plague anyone venturing near the water by foot or boat. But to the vast majority of those who enjoy Pennsylvania's waterways, these officers are known to be doing their level best in a fair and impartial manner, protecting the rights of the many who want to enjoy our public resources safely without being annoyed and endangered by the inconsiderate or thoughtless few. Because *consideration* for the rights of others to enjoy our public-owned resources is such an essential ingredient in the makeup and character of the people we all like to fish and boat with, the primary objective of our law enforcement efforts is to encourage all users of our waterways to think of other people on the water who are entitled to enjoy it in their own way. There is a very direct link between *courtesy* (consideration) and *safety* so that our regulation against "reckless and negligent operation" is usually invoked against an operator spoiling the pleasure of others more than because he is risking his own life.

In carrying out his law enforcement duties, the officer must be guided by the realization that he cannot possibly stop all violations—time and resources would not permit. He can only stop those which he does observe (or are reported to him by persons willing to testify in court) and his failure to do so seriously damages his credibility, not only in the eyes of the observing public, but more importantly, in his own estimation of himself. He would be unable to defend himself from charges of giving some preferential treatment and discriminating against a few, uninfluential "little guys". Needless to say, he couldn't live with himself very long and the Fish Commission would certainly not have survived 107 years operating in that fashion!

This does not mean that the officer should not use his own best judgement in deciding how far a case should go. Under some circumstances and with some people a *warning* will obviously be as effective as an *arrest*. Within certain policy guidelines, the officer makes his on-the-spot decision in cases dependent upon his judgement call. Very little leniency can be shown in violations of the PFD requirements because the ready availability of an approved Personal Flotation Device for each person on board is so definitely related to the knowledge of, and general attitude toward, the whole subject of boating safety. This must apply even where a person is alone in the boat and obviously endangering no one but himself—the next time out he may have friends along and if he doesn't know or appreciate Rule One it is unlikely he will be much concerned with any of the others.

The enforcement of boating laws is a little complicated because several agencies are involved in this work on waters which are within our geographical boundaries but in which the federal

government has "an interest"; i.e., a responsibility under federal statute. These are called "waters of concurrent jurisdiction" and include all of our main river systems, Lake Erie and the larger federal impoundments behind Corps of Engineer dams such as Shenango, Pymatuning, Kinzua and Raystown. On 25 June 1974, Executive Director Abele, signing for the Commonwealth, and Captain T. T. Wetmore, USCG signing for the United States, renewed and expanded upon a previous (1968) Statement of Understanding which among other things assigns to the Commonwealth the "primary law enforcement responsibility concerning recreational vessels on waters subject to the jurisdiction of the United States which are within the jurisdiction of the Commonwealth". On these waters, boaters are subject to boarding by both Coast Guard and Fish Commission (on the lower Delaware River - Navigation Commission) officers. Close liaison at the Harrisburg office attempts to ensure consistent application of uniform regulations by all concerned and the coordination of patrol schedules to get maximum coverage without expensive duplication and harassment of the boatman. The Governor's signing last October of HB 875 (Act No. 93) put Federal and State regulations into agreement in all major respects so that whether you boat on the Juniata or the Youghiogheny, the operating, equipment and registration regulations are the same. Speed and horsepower restrictions do vary on different lakes and it is the boater's responsibility to know before he launches his boat what the "house rules" are.

Proof that our officers do use good judgement and are not "ticket happy" is the 1973 statistics: VESSELS BOARDED - 10,260; SUMMONS - 1,523; WARNINGS ISSUED - 3,544. Clearly, most boaters were found in compliance and of those cases taken to court, only 14 (.92%) were dismissed by the magistrate - usually on technical grounds.

Occasionally, a boater who has received a summons writes to our Executive Office objecting to the arrest—usually contending that he didn't know of the regulation or that he didn't violate it as charged. Each case is carefully investigated and each person is again encouraged (as he always is when given the summons) to take advantage of court procedures provided for in the law if he feels himself unjustly charged. We respect the complainant's opinions as being motivated in most instances by an attempt to help us make the system work. NO law enforcement agency can afford to insulate itself from people by a cloak of arrogance and defiance against honest objection. The most cherished freedom of Americans is the one which allows us to criticize and question "the police" without fear of a knock on the door that night. Accordingly, we would feel there was something un-American if we didn't get an occasional complaint. We all do our job better because of them and nearly always the betterment of law and regulations stems from those who have run afoul of some provision, recognized the injustice, appreciated the fact that the "authorities" do not intend it that way, and have taken the time and trouble to bring the matter to the attention of those responsible. Almost always the difficulty is resolved by clarification but a citizen who has seriously tried to understand the law deserves a full explanation — and maybe a rewording of the law.

Fortunately, we get many more complimentary letters than reports of unhappy encounters. Unfortunately, not many of us get the chance to do something heroic and the performance of one's regularly assigned job to the best of one's ability is not something that inspires the average citizen to write to his Representative! It should always be so because the citizen should expect nothing less. Besides, think of all that additional paper flowing into Harrisburg!

We are proud of the job being done, realize we must guard against any hiding of incompetence behind a shield of authority, and know we need the public we serve to keep us on course.

CO-OP NEWS

by Bill Porter

It is interesting to note the advancement and changes made by many cooperative nursery clubs in their installations over a period of years. Such an organization, for example, is the West Chester Fish and Game Association, Chester County.

Our first encounter with those sportsmen was back in 1967. At that time the club was into the business of raising trout for the public with a square, six-foot deep, plywood and railroad tie pond. There were water problems and bypass problems, but trout were raised and the club was in business and considering improvements, which followed over the years to the present date.

Fred Dutt, club secretary, met us on our most recent visit and reviewed the progress the club has made. And before going on, it should be stated that the raceway is now a model one with concrete block construction, aerator pumps in all sections, and all the other goodies that makes it attractive and a functional fish-raising "machine."

But back to Freud's review: An initial revamping of the by-pass system and water intake layout was completed by the club in the summer of 1970 to resolve some problems. The work did the job for the moment and an improvement had been made.

Later in the same year low water problems plagued the site and some more work was done to better utilize the dwindling supply. And interestingly enough, the boys thought ahead to possible flooding (but not of the Agnes caliber) and completed work on a high water diversion control.

Real work began on adjusting the nursery to new and better things in 1971 when the West Chester club undertook a complete revamping and enlarging of their raceway. Plans were developed and approved and a commercial contractor engaged to construct a new 75' x 4' concrete raceway. Most of the work was completed during the spring and early summer and the 25' sections were stair-stepped to increase rate of flow and aid in aerating the water.

In the meantime trout were being raised and some problems were encountered. Club records indicated that effective treatment, by feeding tetracycline-fortified crumbles, resolved a furunculosis problem in the fall of 1971. The treatment was, of course, prescribed

Screens, right, protect trout from predators.

Below: Pumping and aerating device, designed by the club members is built into each nursery section



by the Cooperative Nursery Branch of the Fish Commission and all was back in order again.

As Fred mused through his mind and club records, the standard pluses and minuses of raising trout came into view. High water, low water; disease, no disease; predators, predator controls; and one problem that doesn't seem to be a real problem to the non-nursery worker — rapid growth to the point where the fish are too crowded for their own good! This one was easily resolved by the West Chester people by releasing their holdover fish and grading their yearlings.

1972 was a rough year on everyone in the state with Agnes (and high water at other times in the year) and Fred indicated that they had their share of troubles in that area. One interesting and saving fact was the stranding of the feeder at the nursery site during the worst of the deluge. So since he could go nowhere, he did manage to save a lot of the fish and divert some of the excess water and literally tons of debris that otherwise would have probably "totaled" the project.

An excerpt from the club's 1973 annual report reflects the pleasure of the success of a "very good year"—to quote one of Sinatra's old songs. Trout grew, fishermen were pleased, and there were no major hangups. At least at the time of the report, there were no problems. A water quantity problem developed early in the winter when the flow dropped to 25 gallons per minute. This was followed by a severe storm that deposited a lot of silt



and pushed the flow to over an estimated 2,000 GPM — enough said!

And that brought Fred back to the present and our visit. The excess water problem is being diverted by a concrete bypass (partially completed at the time) and a re-devised intake system. The upper section of the raceway has been raised 8", which alleviates some of the debris problem and gives better control of the flow through the raceway. And finally, three 110 volt agitator type aerators have been installed. These units are pumps that force a flow of water through a pipe that spills out into each section of the nursery and may be operated independently of each other if needed.

And that's just about it for the West Chester Fish and Game Association's progress to date. The nursery is attractively landscaped; the storage building is neat and clean; wooden portions of the nursery are painted a serviceable dark brown; screens cover all portions; and the boys are proud of their efforts. They have a right to be.

As we were leaving the property a fisherman stopped us along a nearby stream, "You fellows from the Fish Commission?" We allowed as how we were. "You ought to go up the road about a half mile and look at those West Chester fish and the nursery. Those boys are doing one (expletive deleted) job!" We didn't ask if he was a club member and we didn't tell him we had been there. His support was honest and that's a good spot to end the story of the West Chester Cooperative Nursery.



AN OLD STORY—

To help people better understand the new "throwable device" provisions of the motorboat regulations, I like to relate to them a story which I read some time ago which shows how important a throwable device can be.

In Thailand, way back in 1883, the royal barge of Queen Sunanta was being towed by a power launch (power unknown). Traditionally, the barge would have been oar-propelled, and traditionally, it should have carried strings of coconuts for emergencies, as specified by court laws dating back 400 years. In modernizing her transport, however, the coconuts had been forgotten. The launch swerved, the barge capsized, the queen went into the water. Boatmen and spectators on shore prepared to swim to her rescue but were sternly warned away by an official in the launch. The same law that specified the coconuts decreed that only by throwing a string of them within reach could a royal person be assisted, since touching any part of the body of a royal person was a sacrilegious act punishable by death!

So, with no coconuts at hand, the queen died! The coconuts were restored and as late as the 1920s were kept as life preservers on the royal Thai barges.

By today's regulations, coconuts could hardly be accepted as legal throwable devices, but the incident illustrates how a throwable device may save someone's life in an emergency.

Samuel E. Pack
Deputy Waterways Patrolman
S/Allegheny County

MUSKY FISHING, BEDFORD COUNTY—

1974 opening day, we received reports on six muskies that were taken, three from the Shawnee Lake, a 31½, 33, and a 34-incher. These fish were checked about 11:00 a.m. and all fish were taken on large minnows.

Three muskies were taken from Gordon Lake, 32½, 34 and one that was 39 inches. I checked one of the fish, the 39-incher, taken by Mr. Barry Ewser, Mt. Savage, Md.

While on Gladdens Run, May 3, 1974,

I was talking to G. D. Smith, Mt. Savage. Mr. Smith had in his possession a very nice catch of brown trout, his smallest one 12 inches and the largest 18 inches. The catch of eight from this stream where not over one hour before I had received a complaint that the Fish Commission did not stock near enough of trout in it and, what had been stocked, had all been caught out before the season, or on the first day!

William E. McInay
Waterways Patrolman
Bedford County

SORRY, FELLA!

While on patrol of one of our Wired Areas located on Bowmans Creek, assisted by Game Protector Ed Godsky, I watched two men fishing downstream from one of the posted wired areas, casting up toward the wire. One of the men was repeatedly successful in casting into the forbidden area, while his partner's line always fell an inch or so short. After watching for almost an hour, I confronted the two men and asked to see the license of the one that was lucky (?) enough to get his lure up into the nursery waters. After I had written him up, his friend came over to me with his license in his hand saying, "Here is my license, I guess it's my turn now". You should have seen the look of disbelief on his face when I informed him that his lure did not quite make it!

Claude M. Neifert
Waterways Patrolman
Luzerne County

LOTS OF FISH!

This does not happen too often, but recently, while fishing the East Fork Branch of the First Fork of the Sinnema-honing Creek in Potter County, I was using three wet flies: Royal Coachman, White Winged Coachman, and an Adams, and on the third cast caught three fish—one on each fly! So you see, fishermen, there are lots of fish in Pennsylvania!

F. McCollum
Deputy Waterways Patrolman
S/Allegheny County

NEW WRINKLE . . . OLD SUBJECT

While along the streams and lakes and talking with fishermen about the catching of fish and especially trout, I have had people ask me why they "feed the trout before stocking so they will not bite," or any other excuse that they can think of to justify their inability to catch the recently stocked trout. Well, I thought I had heard all the reasons why fishermen cannot catch stocked fish, but I heard another. The query was, "Why do they put that *chemical* into the water so the trout cannot see for two or three days after stocking?" I guess, in this "space age," chemicals are even the answer to catching stocked trout. That was the "excuse of the month!"

Warren W. Singer, Jr.
Waterways Patrolman
N/York County

BAD AIM

One Saturday, last May, I had occasion to check a fisherman along Tidioute Creek. He had two nice trout in his creel, plus what I can only describe as a small pile of splinters, with a lid. His story was as follows: He went turkey hunting that morning on the ridge above the stream. He called once or twice with his box-type turkey call and a gobbler answered. He found a place to hide behind a large log where he sat down and leaned back against a tree a few feet behind the log. When he figured the turkey was close, he leaned forward, put the call on the log, and sat back to get ready to shoot. When he looked up, there was the turkey. They were both surprised, and as the bird began to run, our friend raised his shotgun, and "Bang" . . . missed the turkey, *but shot his turkey call off the log!* He put the remains of the call in his creel, so his buddies wouldn't find it in the car.

George R. Jones
Waterways Patrolman
Warren County

INVALUABLE ASSETS!

It seems to me that very few fishermen realize the tremendous job that the Deputy Waterways Patrolmen do *for them*, and the Fish Commission. About the only time the average fisherman sees one of our deputies is when they are checking his license or creel. They don't realize that these dedicated men also help stock the fish, assist with conservation education programs such as fishing schools, and generally help with anything else that needs to be done. What most fishermen don't realize is that the

deputies do all of this necessary work *with little or no pay!* So, if you see one of our deputies approaching, don't mutter about that "so and so deputy," shake his hand instead and give him the thanks he deserves. How many of you would be willing to devote so much time to the improvement of your sport with no pay? As for me, I want to extend my thanks publicly to the deputies in Blair and Cambria Counties. I have worked with these men for the past few years and I know that I couldn't do the job without them. Well done, men!

*Walter A. Rosser
Waterways Patrolman
Blair County*

U.F.O. —

I had returned to the Logans Ferry Marina to take my patrol boat out of the water for cleaning. It was about 8:30 p.m. when a boater stopped, telling me that he had just seen a "UFO"! I began to smile, and he said, "I'm not joking! Go up the river to the Tarentum Access and you'll see what I'm talking about!" I told Deputy Frank Marzano to get aboard and we'd go look at this "UFO". When we saw what the boater reported, it turned out to be an Unidentified Floating Object! There was a boat with lights all over it—not regular running lights—it had 200,000 candlepower aircraft landing lights! Not only was the lighting improper, but it had no registration number, no validation sticker, no flame arrestor, and not one Personal Flotation Device aboard, although there were four people in the boat! When that first boater said he had seen a "UFO," he was sure on the beam!

*G. L. Greiner
Deputy Waterways Patrolman
Westmoreland County*

ANY TAKERS?

The trout fishing in the Canoe Creek Dam has been real good, in spite of the rather inclement weather. The dam was stocked this year with 6,000 rainbows pre-season and 4,000 browns in-season. Some of the fishermen have become very adept at catching the trout in this new dam. In fact, one fellow from Altoona, Mr. Wilfred Black, caught his limit of 6 trout, 19 consecutive fishing trips in a row. He also caught his limit a number of other times. He would like to throw out a challenge to see if anyone else has had better success.

*Walter A. Rosser
Waterways Patrolman
Blair County*



NORTHERN PIKE "SPIKE BUCK"?

I thought Angler readers might like to see this unusual specimen. The fish was an 18" northern taken at Lake Marburg and is now on its way to Benner Springs Fish Research Station for our biologists to see. Photo was taken by Don LeGore.

*William F. Hartle
Waterways Patrolman
S/York County*

paid for it with a \$10.00 bill, his receipt and \$5.00 in change were given to him and he started down the aisle. Just before he got out of sight, Officer Garrett saw him turn around and approach the booth again. Thinking something must have been wrong, and not knowing what to expect, we were quite shocked when he threw the \$5.00 bill on the counter and said, "No sense in carrying this around all night, sign me up for three more years!"

*William F. Hartle
Waterways Patrolman
S/York County*

FISH "FRY" —

While stocking walleye fry recently in Pymatuning Lake, each time we pulled into an access area to stock all the fishermen nearby would rush over and make remarks such as: "Wait a minute till we move our equipment to the area where you are stocking!" "Could we fish in the fish truck to get our limit?" "Are they legal size?" After each comment I explained our walleye fry stocking program and at what approximate age these fish would be legal size. It seems that fishermen would like us to stock only catchable size fish!

*Warren L. Beaver
Waterways Patrolman
Crawford County*

NO HARD FEELINGS —

Received in the morning's mail:
"Mr. Joseph E. Bartley:

Enclosed in this letter is our copy of the warning issued to us on Sunday. We are in the process of making all corrections concerning the possible violations. We thank you for informing us as to the necessary equipment to be adequately equipped boaters in the effort to insure the greatest possible safety while on the water.

We are looking forward to being inspected by you the next time we have the boat on the water!"

Yours truly,
THOMAS THOMASIK, JR. (sig)

*Joseph E. Bartley
Waterways Patrolman
Pike County*

"ON SECOND THOUGHT"

While working at the Fish Commission's Exhibit at the York Outdoor Show, Deputy Waterways Patrolman Richard Garrett was approached by a gentleman who wanted a three year subscription to the *Angler*. After the man



The Allegheny River in Venango County.

“The Black Rat”

FLY TYING

by Chauncy K. Lively

photos by the author

An addition to the usual cork and/or hair bugs commonly used by the fly-rodder in his pursuit of bass, there are quite a few effective bass flies adapted from other modes of fly fishing. Anglers who frequent Pennsylvania's Northern Tier counties know that the lower reaches of such large trout streams as Pine, Kettle, the Sinnemahoning and Penn's, to name a few, have good populations of smallmouth bass which are often susceptible to enlarged versions of standard trout flies, particularly during mayfly hatches. This is a fortunate circumstance for the light tackle fancier; being able to use lightweight trout gear makes for a nice respite from the big rods and heavy lines commonly required by conventional bass bugging.

The roster of salmon flies has also contributed a few patterns to inventive bass fishermen. Back in the early 1950s A. J. McClane extolled the virtues of a 'kicker'—type salmon wet fly as an excellent bass pattern, especially for river smallmouth. The fly was called the Black Rat, designed in 1946 by Dudley Mills and popularized

by Alex Rogan, of the famous Irish family of fly dressers. For some reason the pattern has since been modified and the present version follows more closely the conventional hair-wing salmon wet fly in form. But the Black Rat described by Al McClane had the same ingredients presently used, except that the wings of skunk tail hair were flared forward at a forty-five degree angle and tied flat. Thus tied, the stiffish wings responded to twitches of the rod tip with a wild, pumping movement, a king of action bass often find irresistible.

My own experience with the Black Rat and bass began on the Allegheny River in the pre-Kinzua Dam days, when water levels were more predictable and effective bass bugging was a consistent proposition. The pattern proved its mettle when the mating flights of damselflies were over the water, a time when conventional bass bugging was sometimes of little value. The fly's wings and hackle were greased lightly with line dressing and the fly was fished in or just under the surface film. Short, intermittent twitches which made a subtle surface disturbance seemed to work best but at times bass would take the fly as it floated dead-drift in the film. I've had some good days on the Allegheny with the Black Rat in recent years, too, and it should work on any stream where smallmouth are found in relatively shallow, clear water.

To keep the fly at or near the surface I like to tie the Black Rat on salmon dry fly hooks. However, any long-shanked hook will do, provided the wire is not unreasonably heavy. If you fish for bass with a light-action trout rod be sure your hooks are honed to needle sharpness; bass have tough mouths and successful hooking requires a little more than the gentle lift of the rod common in trout fishing. But then, sharpening hooks should be a routine chore with the dressing of each fly, regardless of whether the quarry is bass, trout or panfish.

Tying the Black Rat:

◆ 1. Clamp a long-shank, size #6 or #8 hook in vise and bind black tying thread behind eye. For wings, bind a bunch of mixed black and white skunk tail hair to hook with tips pointing forward. Wings should be about as long as shank.

2. (Top View) Separate hair and make these turns of thread around base of each wing to lock in position shown. Trim away hair butts close to windings and apply cement to base of wings.

◆ 3. Spiral thread back to bend. Taper one end of a short strip of flat gold tinsel and tie in tip of tinsel.

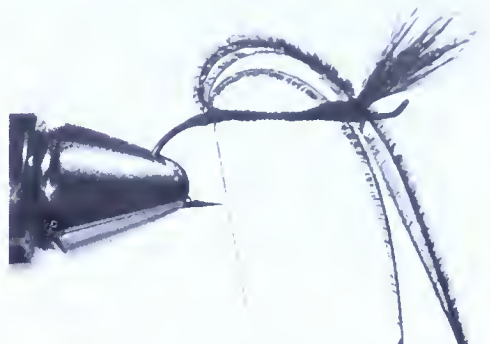
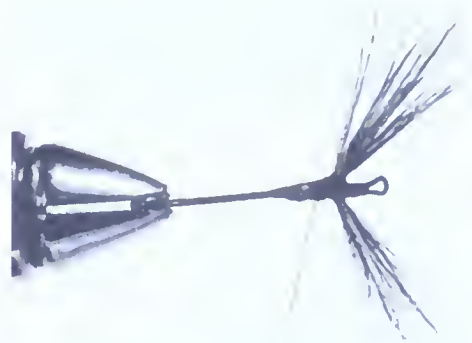
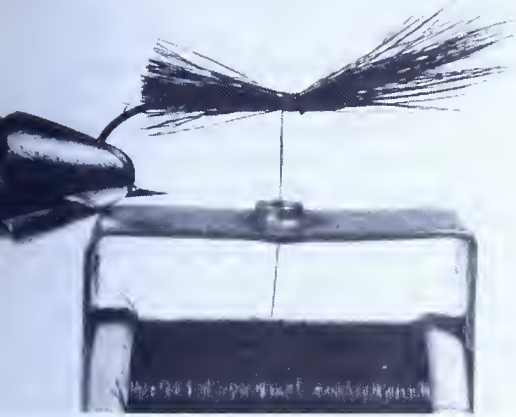
4. For tag, wind tinsel four overlapping winds down around shank, then back over itself and tie off. Trim excess. Tie in three or four strands of peacock herl by their tips.

◆ 5. Twist herl strands around thread into a rope and wind forward to wings. Tie off herl and trim excess.

6. Select a badter hackle with barbule length about equal to gap of hook. Tie in one edge, dull side forward, behind wings. Bind stem forward along shank in front of wings and trim excess.

◆ 7. Wind hackle behind wings with last turn in front. Tie off and trim excess hackle tip. Then build neat head with thread and whip-finish. Apply cement to finish windings.

B. A bass-eye view of the Black Rat. ◆



Keystone Camping

by Thad Bukowski

STREAMSIDE CAMPING IN A VAN

Oil Creek is sometimes referred to as a stream with big carp, big trout, and during the summer, sunning rattlesnakes. Actually, I have had more luck with SMALLMOUTH BASS there than in almost any stream. During the summer, its shores are sprinkled with softshells which the bass relish and at night, it is hard to drag a black Jitterbug, large size, through the rock-strewn pools, without getting a good strike!

My most recent trip was an over-nighter as we camped along the stream shore during the warmer part of the trout season. Ed Chontos, of Ellport, near Ellwood City, was proud of a van he used for camping and wanted to show just how convenient it was for anglers to get an evening and morning of fishing with an easy snooze in between.

It turned out to be a delightful way to camp overnight while angling. The van had more room than my station wagon, was much lighter than a truck camper, and had plenty of mobility to get us into an out-of-the-way streamside spot.

"I intended buying a truck camper, but the more I thought about a van, the more intrigued I got with the idea," Chontos said, "My wife and I like to go off along a stream shore for a couple of days of fishing. And when she's not inclined to do so, it's so easy to take a fishing buddy," the avid angler added.

Chontos' van is a two-seater and behind these it contains a carpeted floor at least six feet long with plenty of room for a couple of sleeping bags. A set of side doors, opposite each other, add a practical dimension to fishermen's needs for removing tackle and styrofoam containers with food, readily. A convenient roof rack also permits carrying a canoe or johnboat for the angling trip and it is also adaptable for hitching and trailering a bigger boat.

"Kits for about \$1,000 to outfit the van as a complete camper are also available," Chontos informed, "They include such items as refrigerators, stoves, tables, and other usual items found in a regular camper, should one be a handyman and want to add specific items." Chontos has built only what he terms his "*coffin*," a seat-like compartment along the length of the van in the sleeping area which holds his fishing tackle, life preservers, boots, minnow net and minimum camping needs.

Although Oil Creek was poor fishing on the day we tried it, we avoided the 70-mile trip back home and stayed on for next morning's prime fishing time, choosing another nearby stream for an extra shot of angling. As the evening wore on unsuccessfully, we finally pulled out some "vittles," hustled a charcoal fire and got two T-bones broiling with a pot of baked beans bubbling alongside, while we watched patiently for a hatch and possible dimpling trout in the big pool before us. There was no activity, however, and three GREAT HORNED OWLS began hooting music from the nearby hillsides just before we turned in for the night.

When morning broke, we moved to Selkirk Bridge along the Caldwell Creek, where we had another streamside meal over charcoal. Breakfast of bacon and eggs somehow tasted much better than at home and a hot thermos of coffee,

thoughtfully brought along the day before, completed our needs quickly.

I took the downstream "FLY-FISHING-ONLY" area of Caldwell shortly afterwards while my companion headed upstream with some leftover minnows. He landed three stout trout from the big pools above the bridge and lost as many. Downstream, I observed plenty of trout dimpling underneath the overhanging hemlocks in the bigger pools of the Caldwell. They were striking randomly with no specific hatch on the water. I got hits on a variety including wet cream cahills as well as dries, jassids and caddis dry, landing two trout that looked so good I returned both to the deep holes from which they were taken.

Our overnight event took us north of Petroleum Center on Oil Creek in Venango County and though we were unsuccessful there, the following week, Tom Rakocki of West Middlesex connected with one of those big Oil Creek beauties, landing a 26-inch brown, weighing 6 pounds, 2 ounces. Our morning jaunt took us northward along Pa. 227 and 27 from Pleasantville to Selkirk in southwestern Warren County. Nearby Pine Creek at Titusville is also a good trout area and could have been tried, had we more time, as well as Sugar Creek, eastward to Cooperstown from Petroleum Center, along Pa. 27, west to Pa. 427, and then southward. Sugar Creek receives huge stockings of square-tails each spring, usually numbering over 12,000 fish.

Camping in the van was an eye-opener for me as it might be for any angler interested in a vehicle which gets one quickly and compactly to stream or lake-side. For a couple, whether they be fishing buddies, or man and wife, the van can be considered seriously as a useful, lightweight, gas-saver which lends itself very well for the overnight camping angler.

*For two anglers, a van is
an ideal overnight
camping unit with plenty
of mobility.*



THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Smallmouth bass prefer clear streams, with good current, and lakes where the water is cold. They haunt gravel bars and submerged weed beds in lakes and deep holes with rocks and other cover in rivers.

A hooked fish that digs deep into a tangle of weeds is a real problem. If all else fails, let the line go slack. The fish, apparently feeling that it is free, may move out of the weeds. Of course, the hooked fish may at the same time free itself from the lure, but continuing to pull and haul on the weed-tangled fish may also break the line.

Channel catfish bite best just after dawn and just before dark.

Small plugs are ideal for bass fishing when the water is low and clear. They make a minimum of disturbance when they alight on the surface of the water and also less disturbance when they are retrieved.

No pork rind at hand? Use the last couple of inches of a plastic worm as a substitute.

Streamer flies are designed to be fished beneath the surface of the water, where minnows live. But to reach fish that are

not actively feeding it may be necessary to fish this type of lure very slowly, virtually on the bottom, or to go to the opposite extreme and skitter the streamer across the water surface.

Best bait for perch is a live minnow about two inches long, hooked through the back, with a small bobber attached to the line and split shot about a foot above the hook to keep the bait down to a proper depth in the water.

In the colder waters of autumn bass stay deep and are lazy. Bottom bumping lures with good action and live bait fished deep are best at this time.

Veteran musky fishermen have a saying: "The worse the weather, the better the fishing." So, fish for other species on calm, beautiful days and go after muskies when there is a spell of rotten weather or autumn cold in the air.

Spinnerbaits, usually jigs with one or two spinner blades attached to a shaft above the body of the jig, are just as effective in the North as in the South, where they were developed. They can be fished deep and slowly or worked at the surface through lily pads and other heavy cover. In the latter situation, the rod tip

should be held high and the spinnerbait reeled at a fast pace.

Stout tackle is needed in fishing for northern pike. Fish of this species lie in or near weed beds and other obstructions, and their first reaction to being hooked is to make for the heart of such cover. Light lines and delicate rods will not keep them out of such areas.

The water around boat docks and piers is good fishing territory for bass, bluegills, perch, and crappies.

Soft rubber or plastic worms that feel damp, or slightly sticky, are the best. They "work" more freely when retrieved.

Spinners that persist in coming to the surface on the retrieve are a sign that they are being moved too swiftly. The correct speed is just enough to feel the throb of the spinner blade as it moves through the water.

Fish deep for walleyes. They are bottom feeders, and lures or bait presented just above the bottom will bring best results. As with all rules, however, there is an exception. Walleyes sometimes are caught on surface lures fished at dusk or during the night hours.

Reflections on 77 "Openers" continued from page 19

There were many other simple notes, such as: "*May 29, 1915, caught in Bowman's Creek, 42 trout 10 to 15 inches in 2 days,*" and "*July 7, 1922, caught 25 trout in 2 hrs. in Broades Creek.*"

For 1973, the ledger relates: "*I caught 5,024 trout since I retired.*" Bachman fishes two or three times a week during trout season and logged 43 trout fishing trips last year.

"What were your best trout years?" I asked the devoted trout angler.

"Why, one of my best years was back in 1906. Things were slack at work, and I got laid off for about a month. I recall in a three-week period I caught 337 trout, including one 21 inches long. But then, I was fishing nearly every day, too." Then, as he thumbed through his trout diary, Mr. Bachman pointed out, "1963 was the best year since my retirement. I caught 510 and released 118 that season."

The "little black book" lists, since 1950, each day Bachman has gone trout fishing and the number of trout caught. I noticed on opening days he usually gets his limit. In late season, though, there were some day's catches marked with "O."

"This book is the absolute truth. I made my notes each time I came home from fishing," Bachman said, indicating he doesn't tolerate untruths in fishermen.

"Fishermen are liars. They can tell more lies than horse thieves. I have everything written here just as it happened," he emphasized.

While Bachman's fishing has mainly been devoted to alluring trout streams, he said the largest trout he ever caught was a "German Brown Trout," landed from a small dam near Gouldsboro, "back about 1900. It was 28½ inches long and weighed eight pounds and three ounces. However, my largest stream trout was caught on June 17, 1919, in Bowman's Creek, Wyoming County. It was a 24-inch brownie, weighed four pounds and one ounce; caught it on a worm."

"In all the years that you have been trout fishing, have you had any good spills in the creeks?" we asked the veteran trout angler.

"Junior," he shot back, "look at this finger. I broke it in a fall into Paradise Creek. Yes, I fell in the creeks a good many times. If you had walked as many miles as I have, in as many streams and in as many years, *you would have fallen in many times, too!*"

For many years, Mr. Bachman engaged in tying trout flies during the winter months. He still maintains this hobby, but does not devote as many hours to it as he once did. His second wintertime interests are banjo playing and banjo repairing. And, like trout fishing, the old timer claims he's pretty good at these hobbies as well.

Ashore & Afloat

by Gene Winters

How magnificently beautiful the stillness of autumn! How serene the quaintness of the fall! Surely for every person who laments the passing of the summer, another steps forward with unbridled enthusiasm for the golden richness of the waning year. Gone is the frantic hustle and bustle of summer. Now gone the frenzied dash to crowd a lifetime of living into a two week vacation or a half-dozen stolen long weekends. The waters are suddenly virtually deserted. Gone are the speedboats, the water skiers. Missing is the mass of humanity grappling for a corner of a picnic-crowded earth. Forgotten now are the pesty bugs and itchy bites of the pre-Labor Day mosquito air raids. The "sea" now, truly, belongs to you and me.

Here and there, now and then, I'll grab hold tightly the days of shortening sunshine and with one hand upon the throttle and the other grasping the fishing pole, wring from each fleeting moment the last precious drop of nature's almost perfect offering. The fish are still in the water — and likely to remain there *unless we go after them*. We have at our fingertips the magical, almost mystical awe of adventures most men can but dream about. I spend a great amount of time boating and fishing in the fall, perhaps more than any other season. I like fall boating and fishing!

Cold weather boaters and anglers are necessarily made of somewhat stronger stock than the mid-summer vacationer. Cold weather boaters and anglers are a rugged outdoor breed. Rain and sleet, temperatures that drop 30 degrees from one day to the next, rough and fast waters and high winds are "small inconveniences" to which they can and must adapt. At Labor Day, as if Father Time had suddenly thrown a switch, boats are hauled and stored and fishing tackle is cleaned (hopefully) and stored away (sadly) for another year. Not so with the wiser ones; those who know there is excellent water for boating and fishing in October and even into November. Some of us even follow the rambling Susquehanna south into the Chesapeake Bay to still further extend our outdoor season.

Boat launch sites are suddenly readily accessible. Weekend accommodations at resorts and motels are amazingly easy to get. Campground operators now cater to the dyed-in-the-wool late season boater, angler and camper. Add a big bonus feature, too, for it's "lunker time". Men that fish at this time of the year take, on the average, much larger fish than they did in mid-summer

or spring.

The only disadvantage of the fall is cold! If you can beat the cold, you will definitely enjoy boating and fishing more, no matter what other times of the the year you are on the water. If you can throw in a little camping to dress it all up, so much the better.

Proper preparation can keep you going when the going is tough. Warm clothing is a must. Increasingly popular are the one-piece insulated suits so loved by our snowmobiling friends. Waterproof boots, rain slickers, warm caps with ear protectors and a plentiful supply of heavy socks and dry gloves are items that now take a high priority on our boat and equipment checklist. (Rubber surgical gloves give some warmth while permitting finger flexibility. Extra large wool socks slipped over the boots make them non-slip.) Fall fishing and boating is, in most cases, quite a bit different than summertime activity. Enjoying cool to cold days upon the water is, in part, a state of mind, mood and attitude.

Personal Flotation Devices (PFD) take on special importance this time of year. **If ever they should be worn and not just carried, now is the time!** Many times you will be boating and fishing alone. If you tumble overboard, there may be no one around to toss a PFD to you. There may be no one around to hear your cries for help. You will be fighting cold water, maybe colder winds, and fighting to stay afloat should not compound your problems. With heavy, bulky, winter clothing, donning the popular buoyant vest PFD might be a bit of a problem. Turning to one of the newer insulated flotation jackets may be the answer. The only inherent risk in this type is they are not designed to turn an unconscious wearer upright in the water. If you are knocked out and don't breathe through your back, you could be in serious trouble. You must realize the limitations of this type PFD. Everything in life is a compromise.

But who can resist the Pymatuning's 17,000 acres, roughly 16 mile length with more than 70 miles of shoreline? Who can escape the call of the meandering Susquehanna as it traverses the state from New York to Maryland? Who can ignore the lure of the banks of the Allegheny with its whispers of Indian trodden paths? But know full well, these waters can get pretty ruffled in a hurry and hell hath no fury like a wind-chopped sea.

With the changing season comes new challenges to test not only fishing skills but ability to adapt boating practices. A summer swim can be relaxing and invigorating but only the heartiest would venture into the waters of late autumn. Medical science long ago determined the human body feels a chill beginning at 61 degrees. Added to the air temperature must, of course, be the amount of time a human is exposed to the water. In addition, the water may be considerably colder than the surrounding air temperature.

It is sometimes difficult to make the necessary adjustments because we cling stubbornly to the reflections of a summer sunset, bikini-clad bodies stretched lazily on white summer sands. Yet, be ye pleasure boater, boating fisherman or hunter, *adapt to the sea you must*, for it will not adapt to you. The sea will tolerate you, accommodate you, but never forgive your mistakes! The sea knows no

master. And now, as in early spring, is no time to take an unscheduled swim. Remember, the sailor's phrase is "down to the sea", not in.

When you drop the thermometer overboard to see how comfortable the fish find the water, take a moment to consider how you would find it. If it's not to your liking (and it won't be, most days) think carefully before you make a move. Think as you are about to make that long cast. Think as you move forward to the bow to drop anchor. Reflect as you make any movements that could end up with you in the water. The idea is to bring the fish into the boat, not go in after them. Remember fall rains and winds often bring more and larger debris into the water that can "hole" a boat in short order. Bad weather can come awfully sudden and weather forecasts are not infallible. There's always the threat of that cold, cold wind. As soon as it becomes obvious you are going to take a dusting, head back in. You should have one foot firmly planted on the dock or bar stool at least 30 minutes before the blow from a wind-driven cold front arrives at the water's edge.

When the water is at its worst, your seamanship must be at its best! No one in his right mind plans a dip in chilly fall waters unless perhaps he's studying the underwater habitat of fish. But what if the unexpected suddenly happens, you are in the water? First, don't panic! Shock is bound to be a reaction, but panic can spread its effect. Fatigue and morale can quickly become very important survival factors. The Wind/Chill Factor may dramatically enter the survival picture. What are your chances of survival?

Let's examine the air temperature conditions you are likely to encounter. The National Weather Service in Harrisburg reports the average October temperature in the State Capitol is 66 degrees, with the average low 45 degrees. Average Harrisburg temperature on a November day is 53 degrees, with the average low 36 degrees. These figures are interpolated from data furnished by Mr. Cliff Goodall, Chief Meteorologist at the National Weather Service Office in Harrisburg and are based on recorded temperatures in that city. Other

portions of the state could be warmer or colder than the Capitol City averages. Water temperatures at this time of the year can be, and often is, lower than surrounding air temperature. Reflect again about the added effect of wind as outlined earlier. What are your chances of survival? There is no easy answer as there are too many variables. The U. S. Coast Guard (assisted by the Auxiliary), which is charged with search and rescue responsibility on Federal waters, and Pennsylvania Waterways Patrolmen who face such incidents on state waters, have many firsthand observations that graphically display the seriousness of the problem. The Table below dramatically shows that lower water temperatures greatly reduce survival expectancy. Exposure time survival is also affected by panic, fatigue, shock and morale. It sometimes is difficult for the human mind to relate to these unexperienced conditions but the consequences can be dire!

Our intention is not to *frighten* you, but *enlighten* you. Enjoy fall's paradise of water seclusion, but do so in safety and end up enjoying it more (and longer). As the saying goes, "you only go 'round once", but make it a *long* "once"! Fall is beautiful! Fall is Pennsylvania! Don't feel guilty about extending the boating season as long as you can. Insurance companies, who for years were only interested in writing water policies of limited months' duration, are suddenly writing yearlong policies almost automatically for only pennies more in premium cost. They are beginning to realize what many of us have known for years . . . here in Pennsylvania we value our resources, our watersports, and our leisure time far too much to let a single second of adventure escape us needlessly.

Adapt! Think! Practice seamanship! Step up your safety vigil, but join us, the fall breed of boaters and anglers. You will never know the wonder and beauty of it all unless you get out and try, and right now is the best time to start trying. I'll be out, I won't miss a day I can possibly thrill to the excitement of the sea. Yes, indeed, I spend a great amount of time boating and fishing in the fall. *I like* fall boating and fishing!

COLD WATER SUBMERSION—EFFECTS & CARE

(Based on Navy experiments conducted in the Arctic by Captains Goodwin and Minard, USN, and reflecting physical and psychological effects of cold water submersion on the human body.)

The survival-immersion times, without watertight clothing are:

WATER TEMPERATURE	DURATION OF SURVIVAL
28 degrees	Approx. 15 minutes
32	15 to 30 minutes
40	1/2 to 1-1/2 hours
50	1 to 4 hours
60	2 to 24 hours
70	3 to 40 hours
80	* indefinite

* Men can survive for four or more days at temperature over 70 degrees. After that time, factors in addition to chilling, such as fatigue, contribute to collapse and drowning. Even at 70 degrees, time limit is approximately 40 hours, due to the gradual fall in body temperature of man in the water. Rate of water flow over body surface directly effects rate of heat loss. Body heat loss by conduction to cold water is 2 to 4 times the rate observed in air at the same temperature. Note: A person removed from extremely cold water should be warmed very quickly in a hot bath or shower, maintained constantly at 105 to 115 degrees until body temperature returns to normal. If breathing stops, give oral resuscitation without removing from hot bath. Hot fluids (no alcoholic beverages) may be tolerated. Do not attempt to stimulate by rubbing skin as this is harmful to frozen body tissue. Obtain professional medical care immediately.

FISH TALES



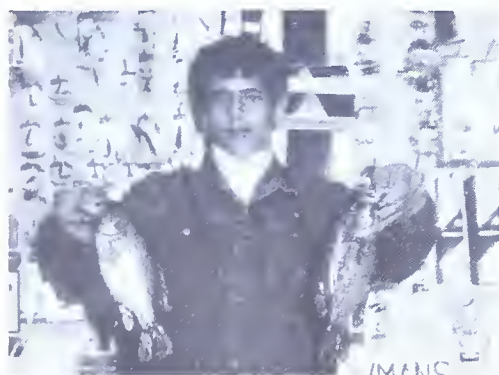
Albert Volpe, of Lansdale, caught this beauty: a 25-1/2 inch, 5-1/4 pound brown trout last May from Beltzville Lake in Carbon County.



Angler Bruce Bender, of Wind Gap, was fishing the Delaware River, Northampton Co., and landed his 30-1/2-inch, 9-pound walleye.



Ronald Hamilton proudly displays the 24-inch, 5-pound rainbow trout caught in the Youghiogheny River, Westmoreland County.



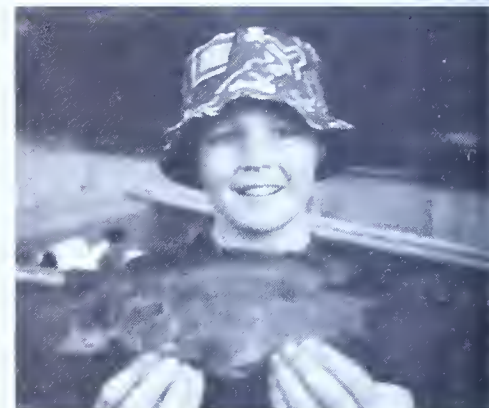
William Hunter, 12, of Sunbury, received a Citation for his 10-1/2-inch rock bass caught in the Susquehanna River, Northumberland Co.



Genevieve Brady, of Glen Campbell, caught her 13-inch crappie last May from Pymatuning Lake, Crawford County, using a minnow.



Kenneth Latshaw, of Sharon, landed this 37-1/4-inch, 11-pound northern pike from Mercer County's Shenango River in May.



Another nice rock bass is held by Chris Gross, of York. He caught this 11-inch from the Susquehanna River in York County.



Nick Kolakowski, of Lower Burrell, poses with two muskies: a 45-1/2-incher, and a 41-1/2-incher, caught last January from the Kinzua Dam.

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The Medix Run Project



Shortly after Hurricane Agnes in 1972, that great lady of the mountains, Marion Brooks, showed us the devastation which had occurred on Medix Run. It is a great trout stream that rises in Clearfield County and courses through steep-sided mountains into Elk County near Marion's home. The incredible velocity of the water had picked up tons of loose stones and gravel and carried them for a considerable distance downstream until the valley widened enough for the stream's velocity to decrease and drop the load it was carrying. The result was a myriad of channels, many of which were to dry up completely during the periods of low flow. Some of the original devices installed in that stream by the Fish Commission in 1958 and 1959 were seriously damaged as well.

We promised Marion we would do something about it.

It was just a few months later that she passed on and we lost this great friend of conservation. When Marion Brooks came into this world, they broke the mold. In our book, there has never been anyone else who did as much with so little.

1973 was a year of recovery from Agnes and a year of intensive effort by the Fish Commission to save as many streams as possible from man's unwise efforts at correcting flood-damaged stream channels. As you are undoubtedly aware, we had a great many serious confrontations throughout the state over the dredging and relocating of stream channels.

On Medix Run we drew up plans for a massive effort at stream improvement. We chose, as the best implementing tools, the Allegheny Trails Council of the Boy Scouts of America, and a number of Trout Unlimited Chapters with kindred interests in the stream. After a training session of some of the leaders a week earlier, the project got underway on September 20, 1974, during an unrelenting downpour. Some 350 Scouts bent their backs and scraped their shins while hauling rocks, pinning logs, and filling gabions. They made a great effort at accomplishing their mission . . . but it never stopped raining. As the air temperature dropped into the low 60's — the water, the low 50's — producing a bluish tinge to the skin and setting teeth to chattering, we watched these shivering youngsters in their water-soaked shirts, shorts, and sneakers, going doggedly about the business at hand! At noon, when the water level in the stream had risen to nearly waist-deep and was getting rather rough, the troops were finally pulled off the project, having done as much as could be accomplished under stream flow conditions such as those.

But the beautiful thing about it was that we could see the devices that they had finished were already at work! Channel blocks were diverting water away from the multiple channels into one and the channel scouring action that nature will eventually accomplish was becoming evident — despite the short time the blocks had been in place. We had used a demonstration structure, completed by Lenny Green's Explorer Post from Butler County the previous weekend, and it was great to see that their hard work and engineering had produced the desired results.

Maybe we're getting soft in our advancing years, but as a former leader of a "runny-nosed troop," I'm amazed that we were able to accomplish as much work on the project as we did under such cold and wet conditions. The boys looked smaller than we had remembered from the last project. But as we worked our way back through the camps — where there were glowing fires and steaming sleeping bags and wet socks — you could hear a couple of untuned guitars picking out a couple of cheerful tunes. All of a sudden we realized that these were not little boys, they were men . . . and about ten feet tall!

Sleep well, America. Your future will be in good hands.

Ralph W. Abele,
Executive Director

it's
really
not too
early to
think about
your Christmas
shopping problems
and we'd like to help;
we can make it as simple as

1

2

3

(turn page)

**1. Special friends
deserve special gifts**

**2. The Angler
is a special gift!**

**3. Turn to back page
for full details.**

Pennsylvania Angler

Pennsylvania's Official Fishing & Boating Magazine

Published Monthly by the
PENNSYLVANIA FISH COMMISSION
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Volume 43—No. 11

November, 1974

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The Cover: The "Dauphin Narrows," where the mighty Susquehanna River is squeezed to about half its normal width, provides some mighty good bass, walleye, and channel cat fishing—not to mention some very pretty scenery! Kodachrome by the Editor.

MONTHLY COLUMNS-

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James F. Yoder, Editor

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*November is no time to put
that fishing tackle away in
"cold storage"—fishing is
just about to reach its peak!*

Fishing Outlook

by George E. Dolnack, Jr.

Come November, the majority of anglers have long since stowed away their fishing gear and won't look at it again, except for some occasional tinkering, until the spring trout season opener. Somehow they have the notion that all fishing ends when the summer sun and the blaze of autumn is behind us. But in truth, some mighty fine fishing is coming into its own and only a handful of anglers are enjoying it.

To be sure, November dishes out a complete sampling of the weather that even discourages the hardcore fisherman at times. But any angler, if he's willing to risk an occasional runny nose and a mild case of the shivers now and again, can fill his stringer with limit catches of bass and walleye.

We owe this good fishing to the cold weather and rains that have lowered the water's temperature and brought the water levels to normal.

These two factors have revitalized the fish and have jogged them out of their warm weather sluggishness. They have moved out of the cool depths that were their summer homes and are now cruising the shallows, gorging themselves fat before the winter season sets in.

While we can't confess a complete revelation of all the bass and walleye haunts, here are some of the perennial

November favorites that you might want to consider for a late fall fishing sojourn.

Those of you who pass near or along some of these waters while journeying to your hunting grounds can also capitalize on this late fall fishing. Sure, everyone's in a hurry to get to camp, but why not try some angling on the return trip. Perhaps you'll be able to place some fish in the freezer along with that game you're bringing home.

In the Northwest, Pymatuning Reservoir is an all-time walleye favorite. The Allegheny River, and there's a lot of it to fish, from Foxburg to Kinzua continues to be top walleye and bass waters. Another good bet is French Creek at the mouth of Conneaut Creek in Crawford County.

Lake Erie continues to defy the doom prophets and seems to be producing more walleyes each year. It is also giving up good catches of bass. And for old bronze back, try the Northeast and Shorewood area where more fish are harvested per surface acre than any lake or stream in the state.

The Southwest also offers some excellent walleye and bass fishing in the Allegheny from Foxburg down to Freeport. Good walleye catches have also come from Cambria County's Glendale Dam.

While primarily noted for its trout waters, the Northcentral portion of the state also sees some fast bass and walleye action on the Susquehanna in the Sunbury area. Hunters Lake in Sullivan County gives up some nice largemouth and the Driftwood Branch of the Sinnemahoning between Driftwood and Emporium is small-mouth country.

The lower Susquehanna dividing the Southcentral and Southeastern sections, though somewhat more difficult to fish than the upper reaches, offers bass and walleye too. For bass, try north of Route 30; for walleye *and* bass, fish south to the Conowingo Dam.

And, not to be forgotten, the Juniata River from Amity Hall up to and including the Raystown Dam provides good walleye and bass activity with the threat of muskellunge ever present.

In the Northeast, it's the Susquehanna again for walleye and bass from Sunbury to Wapwallopen. The entire upper stretch of the Delaware down to Easton is considered the most underfished body of water in the state and those who do fish it take big bass and walleyes.

Lake Wallenpaupack in Pike County is also noted for its fall walleye fishing. Both walleye and bass are fair game in Carbon County's Beltzville Reservoir and two hotspots here are the power line crossing and dam breast areas.

The Southeast also shares in the November fishing. The Delaware from Easton downstream to Morrisville is productive bass and walleye water. The Schuylkill River that meanders down to the Delaware in Philadelphia provides some good bass fishing along the way.

For some reason, the Schuylkill sees mostly "bottom" fishermen. Thus, the game fish population is also underfished. A few hotspots are downstream from Black Rock Dam, around a small island near Phoenixville, and the stretch a few hundred yards up from Valley Forge State Park.

In the Philadelphia section, the Schuylkill holds a respectable bass population that showed up during a



During the month of November, you can count on some tremendous walleye fishing in the Kinzua Dam tailrace.

recent fish shocking survey. Although access areas are at a premium and fishing from boats is prohibited in the Fairmont Park area, shore fishing below the Flat Rock Dam all the way down to the Museum of Art should produce good results.

Chester County's Struble Lake is fast becoming the number one bass hotspot in the area and if the abundant walleyes put on a few more inches during the past few months some nice catches should turn up this fall.

To give an opinion on the best lures to use is like asking for an argument! What works well for one angler may not be worth a darn to another because lures and techniques varies from one place to another and from person to person.

Bass feed mainly on minnows so anything that looks like a fish will take them; this includes spinners, spoons and surface lures.

Spinners with large blades fished up and across stream are deadly on bass, and spoons in striped red/white, black/white, and red/yellow, are also good bass getters. If the bass won't strike on a bare spoon, try spearing a piece of pork rind or small plastic worm on the business end.

Surface lures which imitate a variety of aquatic life as well as non-aquatic are most effectively fished over weed beds and along grown-over banks. After casting, let the surface lure rest on top of the water for about ten seconds before retrieving. Give it a slight twitch before reeling in and try jerking the rod tip slightly to further entice a hungry lure mauler.

Fast becoming the number one bass catcher around the country is the plastic worm. Colors that work best are purple, black and the purple/natural two-tone. Fish the

plastics on the bottom and use a slow retrieve. Give an occasional short jerk and watch your line on the downfall since that's where the bass are most apt to strike.

The walleye, an almost entirely carnivorous fish, is not difficult to catch, nor is it a great fighter. Many anglers have been convinced that they were hard into a snag after tying into one. However, their eating quality is hard to beat.

Walleyes are a schooling fish; so, where you catch one, there should be others. Drift fishing from a boat while bouncing a dixie spinner spiced with a juicy nightcrawler, or just a minnow, off the bottom are two favorite methods of taking walleyes.

But deep-diving artificials that imitate bait fish are killers on walleyes and one of these that is much ignored and little used is the leadhead jig. Anglers who do use jigs catch walleyes consistently.

Head shapes differ and are a matter of personal preference. Favorite sizes range from 2/0 to 5/0 between one-quarter and three-eighths ounces.

River walleyes seem to go more for an all yellow or white jig or those with a red/white head and white body while those in lakes more readily grab a black jig with a black/yellow head or any combination of these two colors.

In looking over my own log book and making a quick tally, 87% of the walleyes I've caught have been taken on jigs and the remaining 13% on spinners and other lures.

To acquire the knack of jig fishing, you'll have to work at it. After casting and letting your jig sink, retrieve slowly while at the same time giving it a jerk. Vary the speed and mix up the jerks until you hit the right combination that will take walleye.



HE SAW IT COMING!

It's a shame that some trout fishermen do not appreciate the privilege of being allowed to fish in beautiful Cooks Creek in Upper Bucks County. Now, as a result of littering and land abuse, anglers are limited to only 3 1/2 miles of the stream, when previously 8 miles were open. Last trout season I saw for myself empty beverage cans strewn along the edge of the creek. I wondered then how long we anglers would have the privilege of fishing here. All we anglers must be diligent to watch our own streamside manners and also to remind others when we see them violating the litterbug law.

GEORGE W. BLOOMER
Levittown

Right, George! We're going to have to begin policing our own ranks. Don't you wonder, sometimes, what makes folks so careless? Ed.

JUST GREAT!

I was fishing in your state over the 4th of July. The fishing was just great on the Allegheny River between Locks 8 and 9. I caught more fish than I ever caught in Ohio for a whole year. Keep up the good work.

DONALD N. SUTYAK
Warren, Ohio

CUT THEM OUT?

Cut out boating articles — devote more space to trout and fly fishing. You're not pleasing some of the people any of the time. Let the great majority call the editorial policy, not a vocal minority.

JOHN KLOTZ
Haverford

Come now, John, Pennsylvania's boaters are neither "vocal" nor a "minority." Our statistics indicate that over 60% of our registered boaters use their boats for fishing. And, if you'll check our past Leaky Boots columns, most every request to "keep the boating articles coming," came from fishermen — some of whom even admitted not owning a boat, but enjoyed them just the same! Ed.

NOT SO FAST!

I especially enjoy the *Angler's Notebook*. I am 14 and try to go fishing every chance I get. My grandfather and myself were fishing from the shore on the Susquehanna River in York County one overcast day in July '73. I was using a yellow, lead-headed jig and retrieving it very fast. It was about the third time I had cast and I let it sink all the way to the bottom and let it sit there a while. Then, with a jerk of my rod I started reeling it in as fast as I could. So fast, that before I saw the walleye (at least a foot and a half long) chasing it, I had reeled it out of the water. With the lure out of the water and the fish just sitting there watching it, I put it gently into the water. The fish swam away so fast that I didn't realize it! From now on, I'm going to make sure no fish is following my lure before I pull it out of the water.

BLAIR FINK
Etters

LIKES IT ANYWAY!

I enjoy this fine magazine though I do not fish in Pennsylvania anymore. I did about twenty years ago and enjoyed fishing your streams. Although not a resident of your state I look forward to the Angler and enjoy reading about some of the places I was familiar with.

JOHN HIZA, JR.
Binghamton, N.Y.

Binghamton is so close to the border, John, why not drop down every so often? We'd be happy to have you. Ed.

NOTE OF THANKS—

On August 10, 1974 the Pine Creek Sportsmen's Club, under the direction of Pennsylvania Fish Commission personnel, started a Stream Improvement Project on Lick Run, Gaines Township, Tioga County. The preparation and information given the club by the Fish Commission was superior in all ways and would normally be accepted as saying, "It's their job," and then forgetting this help. However, the personnel of the Fish Commission, Mr. Paul Swanson, "project engineer", and Mr. Ray Hoover, area Waterways Patrolman, participated way beyond what the club expected from either of these gentlemen.

Instead of sidewalk supervision, both of these gentlemen could be seen directing the operation from knee-deep water or assisting in placing large logs, carrying rock, sledging in anchor pins, operating drills and many other manual labor tasks not normally associated with their job requirements.

You might say they gave unselfishly of themselves and by so doing have received praise of the members of the Pine Creek

Sportsmens Club and a lot of respect by the members of Boy Scout Troup 43 who were there assisting in this project.

The Pennsylvania Fish Commission can be proud of these two men and we want you to know that we are also.

PINE CREEK SPORTSMENS CLUB, INC.
MEL BENNETT, President

For them, Mel, many thanks. We've been proud of them, too, from 'way back! Ed.

WHICH END FIRST?

While fighting a 39 1/4", 18 1/2 Lb. musky, my friend and I had quite a discussion as to from which end I should net his fish. I finally successfully netted it from the rear, but am wondering if there is a suggested method for netting. My friend says that the fish should be led into the net. Any suggestions?

JAMES F. BUFFENMYER
Hanover

Deciding from which end to net a musky is a decision I seldom have to make. Most of the fish that I catch drop into my landing net quite conveniently broadside! We're going to toss this one out to our readers — many of whom have much greater expertise in landing muskies than I do. Ed.



FAR FROM DEAD!

I have been receiving the Angler magazine for the past couple of years and enjoy it very much. It's nice to see articles about Lake Erie and its good fishing. The picture above is of my 15-year-old son who caught a 34-inch great northern on opening day of the season. The fish weighed 8 1/2 pounds. The fish was caught in Presque Isle Bay. We have also been catching a lot of walleye this year — also anxiously awaiting the coho and chinook season. Lake Erie is not dead!

ROBERT E. GIBBS
Erie

Bob, you know that — and we know that — but we wonder how many of our fellow Pennsylvanians know that??? Ed.

FLY TYING BUFF

I think the articles on fly tying are great and I sure hope you never take them from your magazine. I have two boys and they can hardly wait from one month to the other. I thought you might be interested in the photo (right) I am sending along.

RONALD SHADE
Waynesboro

Why would we be interested in a sparkling photo of a beautiful 27¼" brown trout which had a 14" girth and weighed 7 lbs. 4 oz., Ron? We catch them like that all the time . . . well, not all the time, just every once in a . . . would you believe we never caught one over 22 inches? Seriously, Ron, thanks for sharing the catch, but who did the beautiful photography? Ed.

ONLY THREE?

Three cheers for new regular contributor, Gene Winters. His first article in the August 1974 *Angler*, "Ashore & Afloat," was very good and really hit home with those of us who paddle, row, or sail small craft without power.

The type of CLOD-Boater he describes so well takes great pain to make life miserable for small boats without power. Most of us can ride out the wake thrown up by his buzz-jobs, but what gets to you is that being under the influence of spirits as he often is, he might misjudge distances and run us down.

Then, too, there's the water-skier with his hundred horses, wide open and bow high in the air, bearing down on a small craft low in the water that he can't see. We wave paddles high in the air, but they still cause near misses.

We have learned to stay clear of unlimited horsepower lakes, such as the Shenango Reservoir, near Sharpsville, because of the large numbers of the type of boater Gene describes so well and thank our good luck for such lakes as Pymatuning, Wilhelm, Arthur, Chapman, etc.

We enjoy the *Angler* very much and appreciate the variety and quality of material presented. Keep it up.

ED K. HOLLOWAY
Allegheny Canoe Club of
Northwestern Pennsylvania

LONESOME!

As a recent resident of Pennsylvania for 62 years, avid fisherman, hunter and lover of all things in the wild, I still subscribe to the *Pennsylvania Angler*, while living here in Florida. There is still no place like Pennsylvania. Reading the August copy, I just finished the won-



derful story of River Float Trip by Nick Sisley. We have some beautiful rivers here in Florida for river float trips. If only Nick had drawn a picture of his minnow hook-up, I could use it here.

ROY BOYER
St. Petersburg, Fla.

Nick Sisley described his minnow rig in our April issue, a copy which has long since been mailed to you, Roy. Hope you find it useful. Ed.

NIT-PICKING!

I just received my September '74 issue of the *Angler*. It is a great issue. You are giving a lot of Norristown anglers a bad case of Coho and Chinook fever. It looks like the pickerel in the top middle picture of that month's *Angler Fish Tales* section is one of the ones that got away from Mr. F. W. Kofink, Jr. — 27¾", 17½-POUNDS! Really now!!!

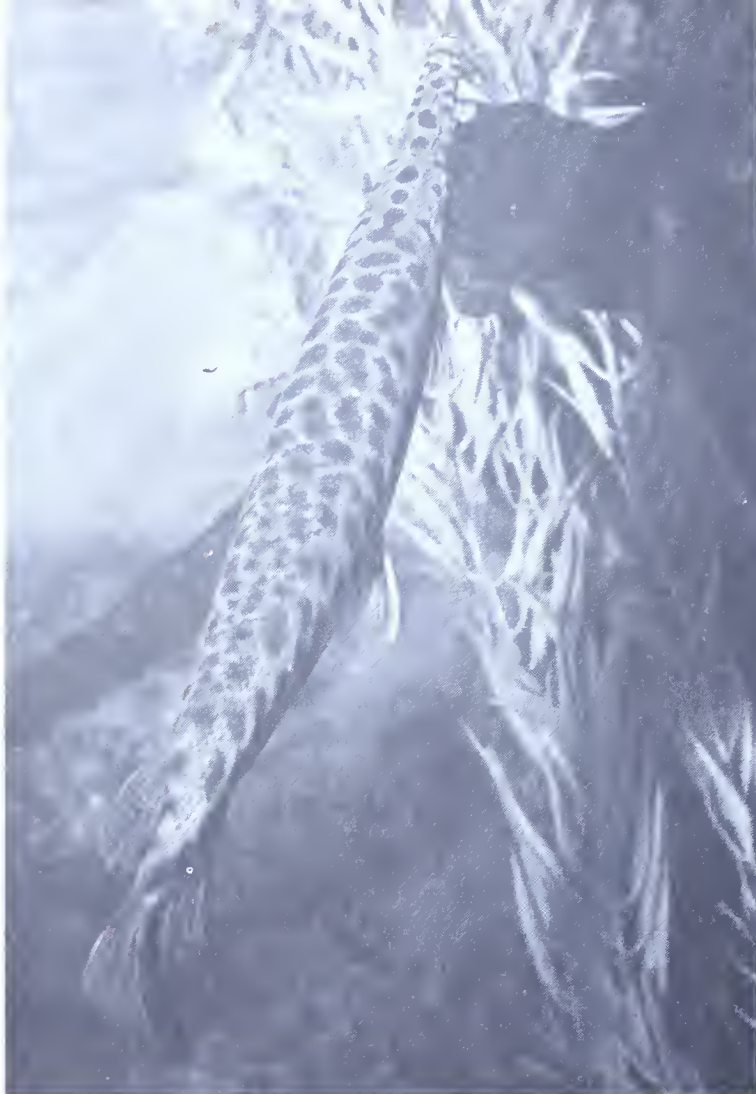
This 17½ pounder should also be a new world record. I don't have the weight of the present record holder available, but it doesn't seem likely that it would be more than 7½ pounds. That 17½-pound pickerel weighs as much as the 40-inch

musky that appears on the same page to the right of it.

I want to thank the Commission again for its great musky program. You have made a musky hunter out of me. I have one mounted that is 33½-inches, and I am now looking for that magic number of 45 inches or better. Keep up the good work with the *Angler* and the muskies.

FELIX A. VOLPE
Norristown

Caught us again, huh Felix? OK, so we made a liar out of the mayor of Nicholson (for which we apologize!), but would you believe 7½ pounds? As our most frequent critic, Felix, you deserve some credit. Just knowing you're out there, good buddy, keeps us on our toes! We did pull one over on you though — in that same issue! If you read Sam Hossler's account of Coho and Chinook fishing at Lake Erie, and we're sure you did, you missed another blurb! In his original manuscript, Sam stated, "I can attest to the fact they are one of the finest tasting fish anywhere." Read it again; that's not the way it came out! Somehow, "NOT" found its way into that sentence, we missed it and made a liar out of Sam, too. Nobody's perfect! Ed.



The beak of the Spotted Gar, left and above, is short and broad, approximately one and one-half times the length of its head. Note the large dark spots on the top of its head. Although spotting and coloration vary widely, these spots on the head are absent from the other gars.

Taking A Closer Look

by Tom Fegely

*The Gars . . .
relics from the past.*

From its hiding place in the water weeds, a LONGNOSE GAR slowly drifts to the surface. Attracted by a school of shiners, the slender-nosed fish suddenly explodes into violent battle, slashing its head from side to side among the panic-stricken minnows. When the ripples clear the gar is no longer in sight, having returned to its place in the shadows. There the gar tosses the shiner about in heron-like fashion so that it can be swallowed

head first, laboriously working it back along the tooth-studded beak to its mouth. Once again all is quiet.

This scene could well have taken place 90 seconds ago, in Lake Erie, or 90 million years ago in some ancient sea! For the gar, like the bowfin (subject of last month's "Closer Look"), has been around ever since the Mesozoic era when stegosaurus and brontosaurus waded near it in some foggy, marshy backwater.

The LONGNOSE GAR, SHORTRNOSE GAR, and SPOTTED GAR are the three species found in Pennsylvania. Although the LONGNOSE is our state's largest gar, the ALLIGATOR GAR found in the southern reaches of the continent may attain a length of ten feet and weigh over 300 pounds.

The LONGNOSE GAR is identified by a spear-like set of jaws measuring 15 to 20 times as long as they are wide. Its color ranges from dark green on the back to a lighter green or silvery shading on the side. The dorsal, anal, and caudal fins are yellowish with dark spots.

The SHORTRNOSE GAR has a much shorter and broader beak than its long-nosed cousin and is often confused with the SPOTTED GAR. The latter is small, averaging about two feet in length and possessing large dark spots on the fins, the top of the head, and both jaws. Its beak is appreciably shorter than that of the LONGNOSE.

The short-nosed species is probably the least common of the Pennsylvania gars. Its beak is short, as the name implies, and it sometimes lacks the spots on the fins and is always without spots on the upper side of the head. Like the SPOTTED GAR, it too seldom grows larger than



The Longnose Gar, above, seldom exceeds three to four feet, although in Texas (where everything seems to grow bigger!), a six-foot specimen was taken in 1954.

The Shortnose Gar, right, has a much shorter and broader beak than the longnose, and has fewer spots on the dorsal, anal, and caudal fins—none on its head.



three feet, averaging closer to two.

All three gars are present in the Great Lakes and are sometimes encountered by Pennsylvania anglers fishing Lake Erie. The Allegheny River has also yielded some gars and the LONGNOSE is found inland in Crawford County's Conneaut Lake. Other than that, they are not generally known throughout the state.

In late spring, the gars move from their winter quarters in deep water to shallow shores with rich growths of vegetation. Here the females shed their adhesive eggs which are fertilized by one or more males. As the eggs grow, they stick to the watery floor or to the surrounding vegetation by a special disc which the tiny larvae develop on their mouths. When the egg's yolk supply has been absorbed, in ten to fourteen days, the young break loose and are on their own. The parents offer no care or protection to their look-alike offspring but leave them immediately after spawning.

The needle-shaped fry feed primarily on water insects but soon graduate to small minnows. One two-inch gar is on record as having taken 16 young minnows in rapid succession, serving as documented evidence of the family's inherent ferocity.

Like the bowfin, a gar will come to the surface to gulp air. In summer, when a lake's oxygen content gets sufficiently low, the fish turns on its side at the water's surface and inflates an air bladder through its gill slits. This is accompanied by a gurgling sound. Then it swallows a large quantity of air through its mouth and presses the air into the capillary-rich swim bladder. In so doing, the gar's ar-

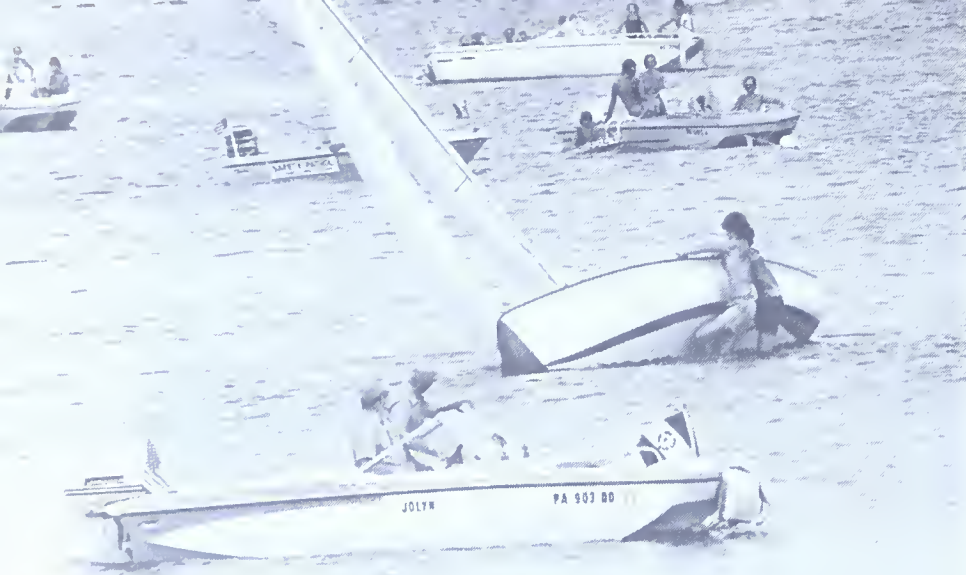
row-like jaws extend far out of the water so that its mouth is exposed to the air.

The gar's reputation is balanced between good and bad. Although it is a great predator of game fish, it also scavenges for dead fish as well as keeping the "trash" species in balance.

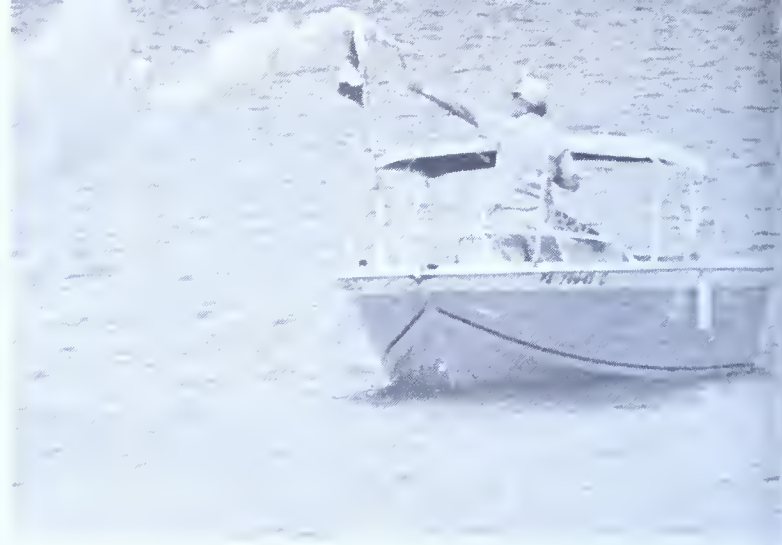
As table fare the gar's flesh is not sufficiently esteemed to give it much commercial importance. The eggs are believed to be poisonous and definitely not of the material of caviar or shad roe. The unique mouth of the gars make them extremely difficult to catch with either live or dead bait or plugs. Since they run with the bait in a way similar to that of the pike family, anglers (in states where permitted) often abandon typical methods and instead use seines, gill nets, snares, nooses and even spears when after a gar. In Pennsylvania, gars may be taken by hook and line, bow and arrow, or spear.

Even spear fishermen are surprised to see a well-placed shot glance from the gar's armor-like scales and go careening off in another direction. In fact, the gar's scaly armor is so tough that in the past it has been used for such items as breastplates, arrowheads, decorative ornaments, and even as plough blade covers by early American settlers.

Although not listed on the Commonwealth's chart of rare and endangered species, the gar family is not well known by the angling public. This, however, is what makes them so unique to someone who sees one for the first time . . . whether in a giant aquarium such as the one at Linesville, or on the end of a line in Lake Erie.



Above left: Members of Harveys Lake Yacht Club demonstrate righting capsized sailboat. Above right: Grank Groody demonstrates use of smoke flare as a distress signal.



“Project Cooperation”

by Gene Winters

photos by the author



“Chopper” demonstrates rescue made by basket and hoist, the method used in rough water, above. In calm water situations, the craft lands on water, below, and taxis to victim.



An outstanding example of multi-agency cooperation took place this past summer on Harveys Lake in Luzerne County, Pa. Utilizing the facilities and services of the U.S. Coast Guard, Coast Guard Auxiliary, Pennsylvania Fish Commission, Civil Air Patrol, local medical and fire department crews, and dozens of support personnel, the extravaganza should not go unrecognized.

Staged by U.S. Coast Guard Auxiliary Flotilla 5-10 (Bloomsburg), the BOATING SAFETY WATER SHOW was planned and brilliantly executed into an entertaining and highly educational program running more than three hours. As over 5,000 watched from sandy beaches, lake-front abodes, and over 100 anchored craft, demonstrations featured air-sea rescue techniques, distress signaling, fire fighting, methods of towing disabled craft, water and kite skiing as well as scuba diving. Also featured were methods of righting capsized sailboats and in-water demonstrations of various types of Coast Guard approved personal flotation devices.

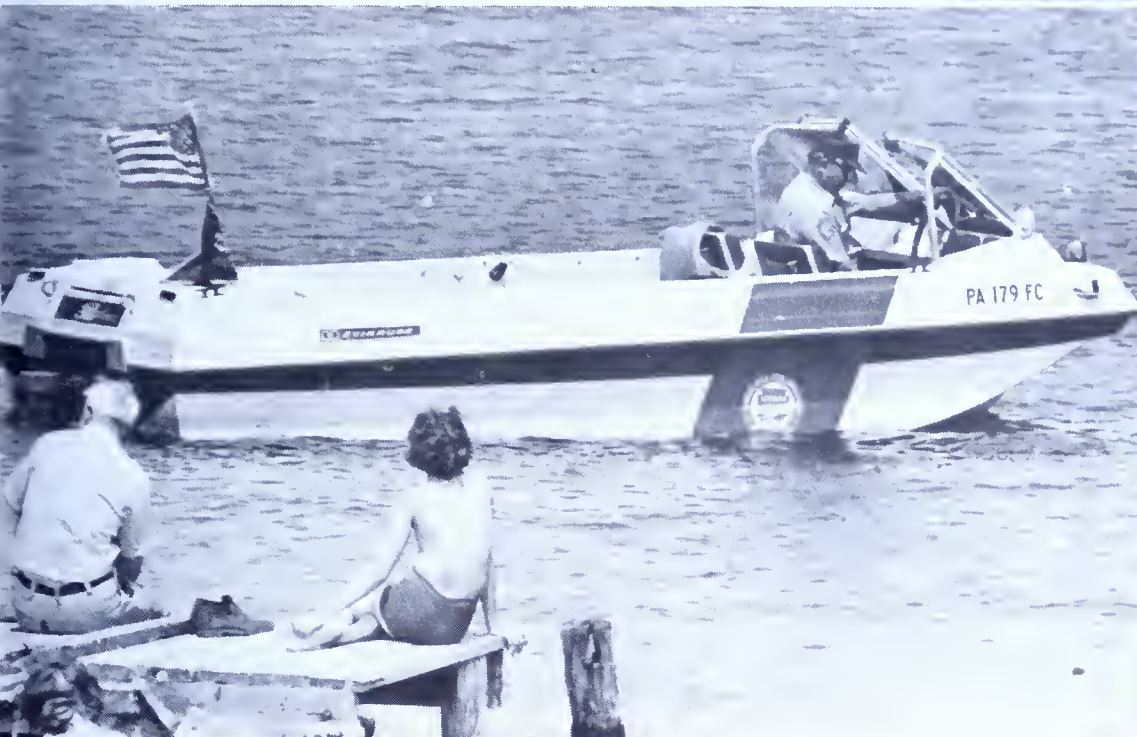
The show demonstrated how sometimes (and understandably) competitive organizations can spring into action in a cooperative effort with precision and resourcefulness that must reassure any boater who might some day, unexpectedly, need help.

The program was directed by Flotilla Commander Thaddeus Piotrowski and programmed and coordinated by Membership Training Officer Russell Kressler. Representing the Coast Guard was Chief Petty Officer Michael G. Sowden of the Wilkes-Barre Recruiting Office. Helicopter pilot was Lt. Victor Primeau of the Brooklyn, N.Y. Floyd Bennett Field station. On assignment for the Pennsylvania Fish Commission was Special Waterways Patrolman Charles Urban of Luzerne County. The Mountain City Scuba Club of Hazleton gave a diving demonstration and the Avanti Water Bugs of Harveys Lake presented a water and kite skiing show.

The accompanying photos can only touch upon the highlights of a Sunday afternoon's event that thrilled and delighted the thousands gathered at Harveys Lake.

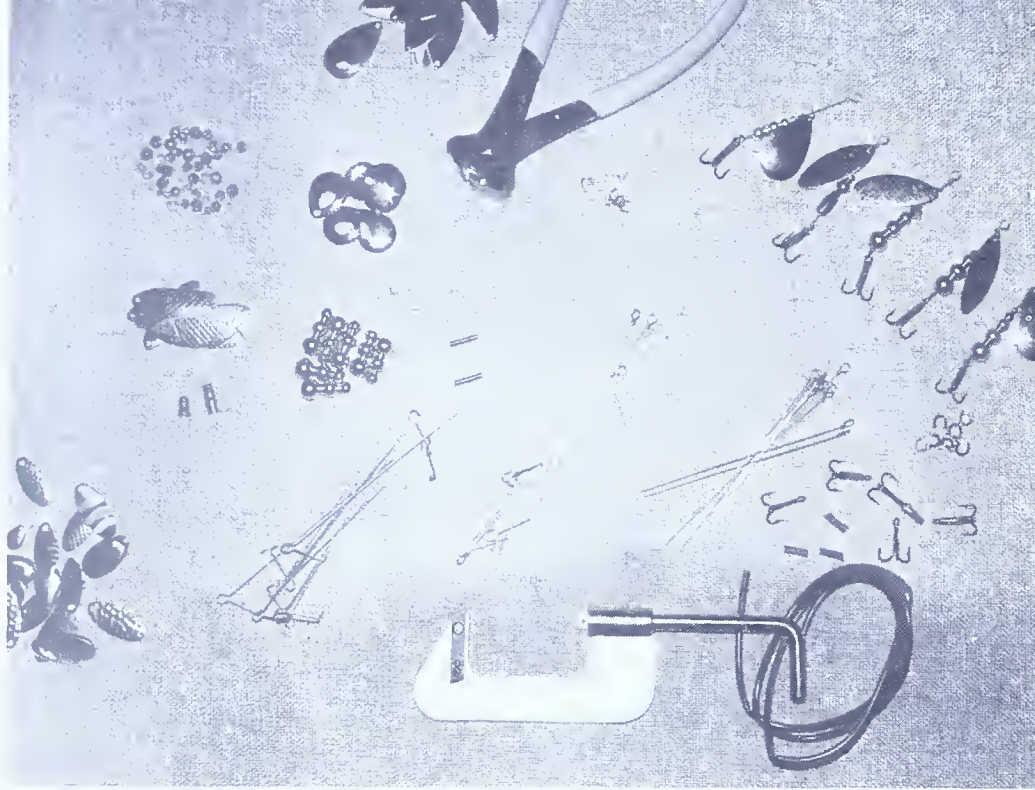


Above left: Fire fighting methods being demonstrated. Above right: Throughout the show, the dock area was a beehive of activity preparing for each event.



Above left: Waterways Patrolman Charles Urban's duty was to keep spectator craft and swimmers out of the demonstration area. Above right: Alan Kayley, Mountain City Scuba Diving Club, demonstrates proper diving techniques. Below left: Cheryl Bowden and Alan Kayley put on in-water demonstrations of latest USCG approved Personal Flotation Devices. Below right: Just a few of the many responsible for the success of the day's program; left to right: "5-10" Commander Thaddeus Piotrowski, DWP Charles Urban, USCG Crew Commander (and "chopper" pilot) Lt. Victor Primeau, and Russell Kressler of Flotilla 5-10. Hats off to all for a job well done!





Lay out everything you need in preparation to making up a season's supply of spinning lures: wire shafts with different types of loops, wire former, assorted types and sizes of spinner blades, weighted bodies, beads, clevises, wire cutters, hooks, and a length of red plastic tubing.

Spinner Making

by Nick Sisley

photos by the author

When fixed spool reels hit North America, spinning lures came over on the same boat. These lures, along with fixed spool reels, or what we more commonly call spin reels, revolutionized fishing and completely changed angling methodology for thousands of fishermen. The change came along in the late 1940's—about the same time manufacturers began using fiberglass instead of split bamboo. The bamboo was becoming harder and harder to get then because Red China was the source of the Tonkin cane utilized in fishing rods. In the late '40s our relations with Red China had deteriorated to the point where commercial trade was eliminated, even prohibited.

The French and other Europeans had, however, utilized spinning type lures and fixed spool reels for many years prior to their gain in popularity here in the United States. Prior to that time the American angler could choose from two fishing methods: revolving spool (bait-casting) reels, and/or fly fishing. Some sportsmen chose both methods, while others became specialists in one or the other. All of them became experts via one avenue, loads of time and experience. Some sportsmen who served in Europe during and after World War II familiarized themselves with spinning lures and spinning reels. Many brought this European angling equipment back to the States when they returned. The end of the war meant increased leisure for the average American, and time for the innovative minds of manufacturing engineers and scientists to turn their attention away from the materials of war toward sporting goods applications.

The typical spinning lures used in Europe were too light to be cast with out baitcasting reels and too heavy to be cast with a fly rod. Spin reels were the only answer. The reel spool did not revolve, consequently there was no

continued on page 12

Photos on next page show how it's done.

Top left: Begin by selecting a wire shaft and thread on a clevis with your spinner blade positioned in the "U" of the clevis.

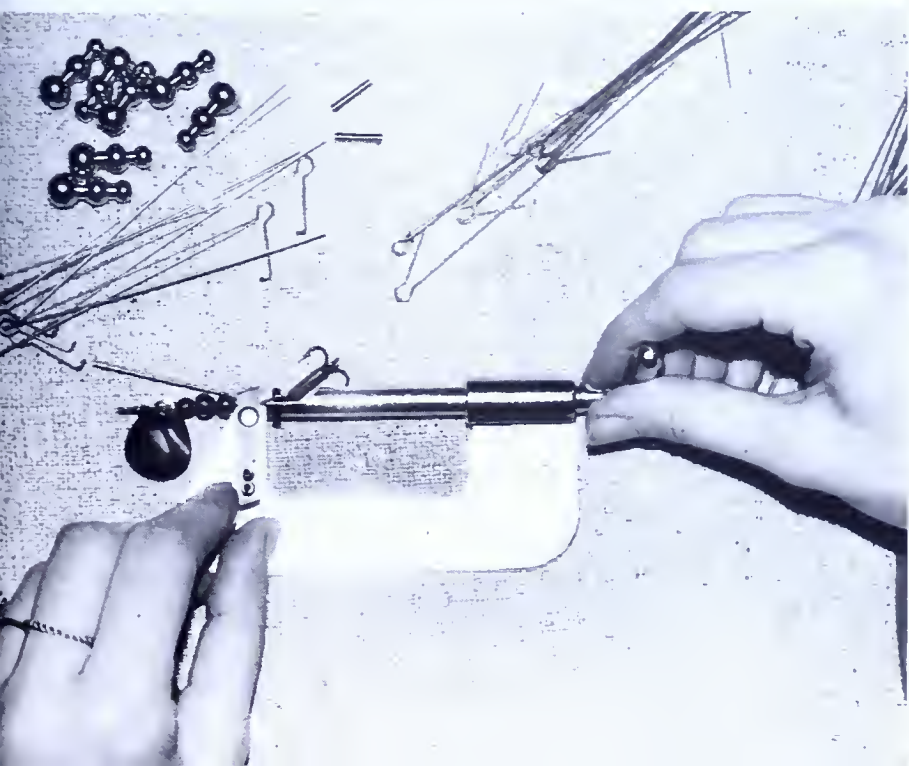
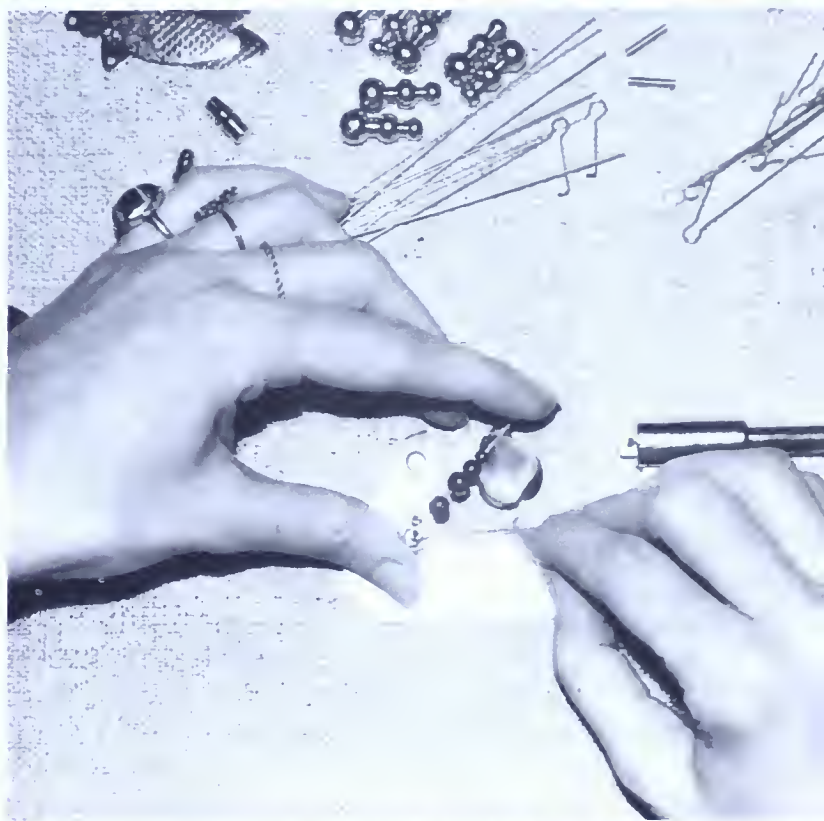
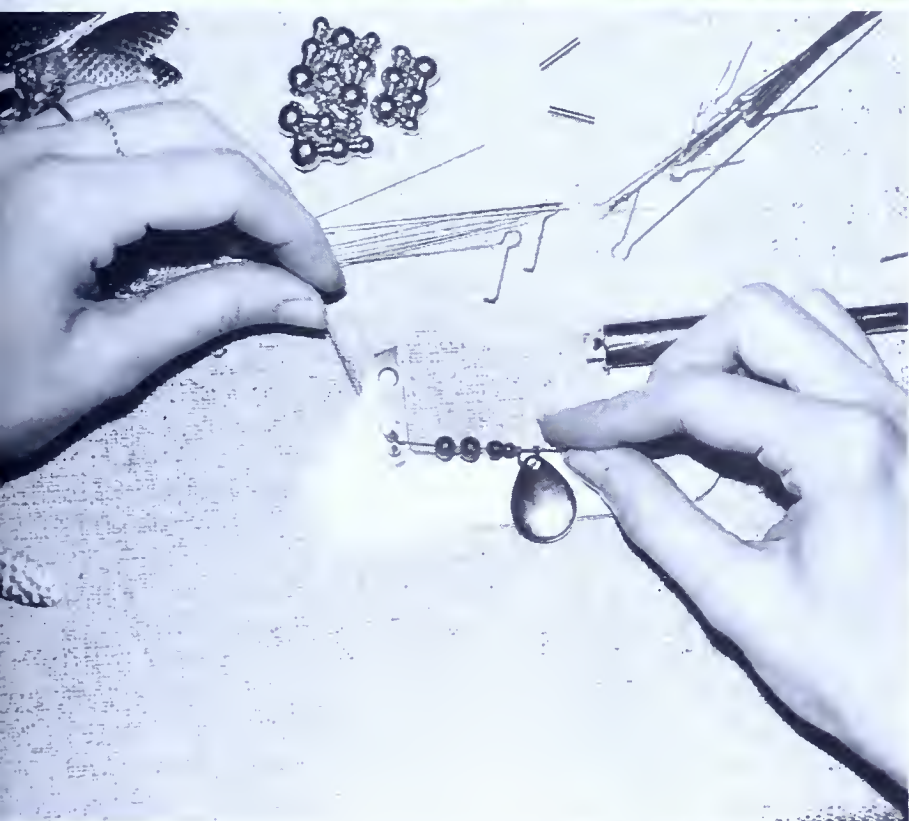
Top right: With clevis and spinner on the wire shaft, insert weighted bodies and/or attractor beads. Putting a small bead immediately under the clevis enables the blade to spin freely.

Center left: Following directions included with your wire former, form your final loop.

Center right: Turn the partially completed spinner around between the posts, and with your left hand, put a small "back bend" in the wire shaft.

Bottom left: Spinner is then inserted into the top of the wire former, held in place while the right hand twists the handle. A twist forms around your loop, and the bitter end of the wire is snipped off automatically.

Bottom right: Your completed spinner, real professional looking, a lot cheaper than a commercially made rig, and a real source of pride!



Spinner Making

continued from page 10

friction to overcome. That was the main reason they could cast the light weight spinners. Additionally, spin reels utilized monofilament lines of a diameter half or less than that of those utilized by revolving spool bait-casting reels. When North American based anglers found out that spinning added a third and new dimension to their sport, and that spinning lures themselves were a remarkably effective bait, they bought 'em up as fast as they were imported. Soon American companies started making spin reels and spinners, too.

But spinning gained overnight popularity with the angling masses for yet another reason. It was easy! Everybody could spin, and spin in an effective manner, with only a few minutes of practice. The hours, days, even years of finesse that were required to master the art of fly casting, and the superbly educated thumb so necessary in baitcasting never had to be learned by the spin fisherman. He could flick out small lures long distances. The spinners that were used were so effective in taking fish from both fresh and saltwater that for a time spinning was banned in some areas. This is not to say, of course, that the art of spinning doesn't have its finer points, for it certainly does. To become a grand master with spin equipment takes as much finesse, effort, and experience as it does to become an expert with fly or baitcasting equipment. In the early '50's, spinning was made even easier with the advent of the closed face or push button spin reel. Both new types of reels not only cast spinners well, but spoons, plugs, jigs — most any type of lure up to about $\frac{3}{4}$ of an ounce.

Most *Angler* readers are familiar with what a spinner looks like. The main portion is a blade tapered from top to bottom. In many cases they're similar to spoon blades, although spinners come in a wider variety of shapes. Spinners are always made from lightweight metal, much thinner than the thickness of a spoon blade. They are attached to a shaft of wire with a hook attached to a loop at the bitter end of the wire. Upon retrieve, a spinner blade rotates (spins) around the wire shaft, creating a bright, shiny, moving attractor that regularly entices game fish into attacking.

As shown in an accompanying photo, a clevis is attached to a spinner shaft which already has a loop formed around the top end for knotting to the spinning line from the reel. The spinner blade itself is attached to the clevis so that it spins around with the clevis rather than the spinner revolving on the wire shaft itself.

Casting weight and/or attractor beads are added between the spinner and the hook end. The casting weights might be brass, lead, or other metal. The attractors are usually beads that can run the gamut of the colors in the rainbow. At the bottom end of the spinner, a hook, usually a treble, is added, then another loop formed in the wire. That's what a spinner looks like. Most anglers have a selection to choose from in their individual tackle boxes.

If you are interested in saving money on spinners, consider making your own. It can be done quickly and efficiently. You can while away winter hours making your

own spinners, like the fly fisherman makes his own flies, and you can earmark the dollars saved for other angling equipment, like that new ultralight reel you've wanted, the bigger tackle box that's a must for this season, maybe even money down on a fish finder or an electric motor.

The catalog houses that cater to anglers have everything you need for spinner making, and by ordering a wide variety of components, you can let your imagination run rampant, developing and devising your own conglomeration of fish-getting spinners. Some of the spinner blade styles are the long, narrow "willow leaf," the shorter, stubby "Colorado" blades, the "Indiana" that takes a more middle road approach, the type with an "indentation" that was made so popular by the famous Mepp's spinners. Certainly there are others. Every design can be of differing colors and finishes. There is brass, nickel, copper, pearl, gold, and of course spinner blades can be painted any color. Blade surface can vary from plain, a small to large mount of fluting, completely hammered, to individual blades of two or more colors. There is no end to the variety of individual spinners the sportsman can fabricate of his own design.

When making your catalog order, in addition to buying a supply of spinners in various sizes, shapes, finishes and colors, you'll also need wire for your shafts. The wire can be purchased in coils or cut lengths. Naturally if you buy your wire shafts in coils, you'll have to form the loop on both ends. Usually, cut wire lengths have a loop formed on one end in one of three varieties: the twisted loop, the safety pin loop, or a "spinner shaft lock," where a small coil spring is used. (Check the photos.) You'll also need a supply of clevises and they come in different sizes, as do the spinner blades. Also buy the brass, lead and other metal bodies along with a supply of glass, brass, and colored beads for affixing to the wire shaft below the spinner and the clevis. Bodies and/or beads add casting weight and attraction. Although treble hooks are usually used on spinners, there is nothing wrong with a single hook. You'll find that releasing fish is much easier when a single hook is utilized. Twisted loops at the top or bottom of your wire spinner shaft can be formed with a small set of needlenose pliers and you can snip off the excess with a pair of wire cutters. Many add a piece of red tubing to their spinner hook shanks with the idea that it directs the fish's strike to the hook area.

Experience will improve the quality and appearance of the wire loops, but you'll always have less than a professional job when pliers are used. Most catalog houses will also sell you a "wire former." With one of these simple, inexpensive tools, you can create effective, professional looking wire loops on one or both ends of your spinner shafts. Accompanying photos will give you an idea on how wire formers work (they all work on the same basic principle.) You can see the professional looking loops that result.

Perhaps the fly fisherman was the first sportsman to find how much added satisfaction was gained through tying and creating his own flies. You should take a lesson from him. Spinners are one of our most effective baits - no matter where you fish, when you fish, or what species you are after. You can make spinners at home quickly, efficiently, and inexpensively. You can turn wasted off-season hours into challenging and rewarding ones.

**This is the
story of
the despoilment of
Canoe Creek,
its restoration,
and the people
who made it
possible.**



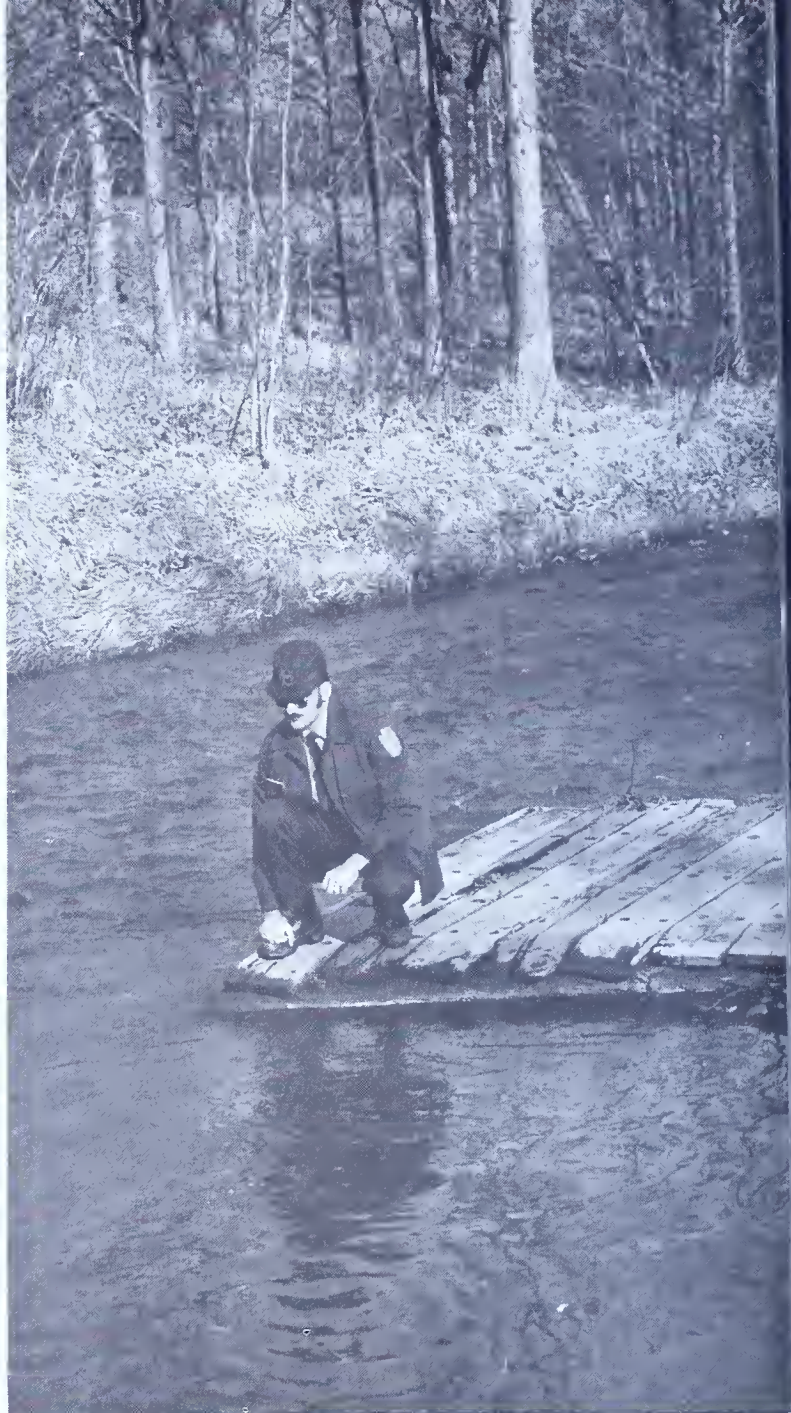
**written by
Walter Rosser,
Waterways Patrolman,
Blair County
with
photographs by
Russell Gettig,
Staff Photographer.**

(please turn page)



Once a flat, featureless "ditch," the restored section of Canoe Creek, above, now provides more suitable trout habitat.

Waterways Patrolman Walter Rosser, right, surveys one of the stream improvement devices built by local TU chapter.



"I hope they will accept our thanks . . . for helping bring a section of the stream back from the grave!"

For those not familiar with the stream, Canoe Creek is a picturesque little trout stream located about 8 miles east of Hollidaysburg, in eastern Blair County, just off Rt. 22. The headwaters of Canoe Creek are located in heavily forested State Game Lands. In the headwaters, native brook trout are found in abundance. From the Game Lands, Canoe Creek flows through several miles of privately owned land until it reaches Canoe Lake, at Canoe Creek State Park. From Canoe Lake, the stream flows into the Frankstown Branch of the Juniata River at the village of Canoe Creek.

Canoe Creek is stocked annually, both pre-season and in-season, by the Pennsylvania Fish Commission. In addition to the native brook trout population found in the

headwaters, some pretty fair natural reproduction and carry-over of brown trout occurs throughout most of the length of the stream. The fishing pressure on Canoe Creek is quite heavy due to the proximity of the Altoona metropolitan area, some 8 miles away. Some fair hatches of mayflies and excellent hatches of caddis flies are in evidence throughout most of the season. Although Canoe Creek is not a large stream and is quite heavily fished, some pretty good rainbows and browns lurk in the shaded pools. Every year, a brown or two in the 18 to 22 inch class is creeled.

Canoe Creek seemed to be fairly well ignored by progress until 1963. Then, a section of about 300 yards of Canoe Creek was "improved" when a new section of road was built. The stream in this section was dredged to about 1½ times its normal width. All pools and other fish cover were eliminated. Throughout most of this "improved" section the average depth was from two to possibly four inches. In addition to the physical damage done to the stream itself, almost all of the bankside cover was eliminated. This bankside cover, of course, had pro-



Above: Deflectors built in pairs "squeeze" stream down and cut a deeper channel.



Right: Waterways Patrolman Walt Rosser stocks Canoe Creek both pre-and in-season.



Left: Fred Leamer, Jr., from Altoona, with a sampling of Canoe Creek trout.

vided shading in this section prior to the dredging. This section of Canoe Creek was now laid wide open to the warming influence of the sun and, due to the shallowness of the dredged section, the effect of the removal of the bankside foliage was increased. In essence, a section of about 300 yards of Canoe Creek was physically destroyed. But, even worse, the warming effect in the dredged section, affected the entire downstream section of Canoe Creek.

Shortly after I was assigned to Blair County in early 1970, I was contacted by Harry Chittester, then president of the newly formed South-Central Chapter of TROUT UNLIMITED. Harry explained what had happened to this section of Canoe Creek in 1963. He also told me that his TU Chapter wanted to make it their project to restore this section of Canoe Creek.

Tom Qualters, who was then assistant Regional Supervisor at our Somerset Regional Office, came up and he, Harry, and I went to look at the stream. It was decided that stream improvement devices were necessary to narrow the stream to a more normal width, increase the

depth, and to provide some vitally needed cover. In addition, it was also decided that some bankside planting was necessary to stabilize the banks and provide shade and cover.

With Tom's advice and assistance, we laid out plans to build four tip deflectors, initially. These four deflectors would be built in pairs to "squeeze" the stream down to a narrower flow which would cut a deeper channel. The TU chapter set up a committee to "scrounge" material and equipment. In addition, plans were made to get out publicity to recruit workers. In the fall of 1970 we built the 4 deflectors. The following year we built 4 more deflectors. Two of these were built as a pair. The other two were just single deflectors. During the past year or so we finished a water jack dam. This may seem like a long period of time to build just nine stream improvement devices, but let me state very emphatically that building these deflectors and jack dams is a lot of hard work. After one day of "horsing" telephone poles (up to 50 feet in length) around, it was a little difficult to get our "recruits" to come back again.



At the jack dam on Canoe Creek, these anglers are sharing

Left: Lone angler can pick and choose from a variety of riffles and deep pools along Canoe Creek today.

The physical results on the stream have been nothing short of amazing. The depth of the water at the jack dam is about 4½ feet at normal flow. At the deflectors, the depth averages between 1 and 3 feet. In addition, the deflectors and the jack dam have provided necessary cover which is vital for the survival of trout. The deflectors have also helped narrow the stream to a more natural width. I have been stocking trout in this improved section for the past several years. Many real nice fish have been caught at the deflectors and the jack dam.

In the past two years, while conducting a "rod and reel census" (fishing, in plain words!), I have caught a number of small brown trout in the 3- to 6-inch range. I believe that these little browns are the result of natural spawning which is now taking place in this section of Canoe Creek. In essence, an area which was barren of trout and fishermen, now supports both.

The work did not stop with just the building of the stream improvement devices, the TU chapter has since planted several hundred willows along both banks in the past several years. A good number of these willows have

taken root and are starting to provide an excellent source of shade and cover for the stream.

In addition to the stream improvement devices and the willow planting, every spring the TU chapter has held a litter cleanup, not just in the project area, but from the Game Lands gate downstream to Canoe Lake, an area of about three miles. Generally, they have recruited local Cub Scout and Boy Scout Troops for this project. This past spring alone, somewhere in the neighborhood of a half ton of bottles, cans, and paper was removed from the Canoe Creek area during the TU litter cleanup.

In the past four years there have been a number of changes within the South-Central Chapter of Trout Unlimited. The chapter's name has been changed to "The Blair County Chapter of Trout Unlimited". Harry Chitester is no longer president, although he remains active as a director. Bob Beck (one of my deputies) is now president. George Koon is now secretary-treasurer and Tom Wolfe is in charge of the stream improvement committee. Although the names and faces change, the work is continuing.



some good fishing now available in the "scour pool" below.



Right: Lee Glasgow, a wet fly enthusiast from Hollidaysburg, with seven nice trout taken from Canoe Creek.

We had planned to build another jack dam in early April of 1974, however, we had no cooperation from the weather. Hopefully, by the fall of 1974 we will have our second jack dam in place. In addition, we are discussing a channel block which would be used in an area downstream where the channel splits into two channels. Canoe Creek has a tendency to get rather low during the summer and we think it would be beneficial to the stream to have all of the water in one main channel. Just recently, the Blair County Chapter of Trout Unlimited has joined the PENNSYLVANIA FISH COMMISSION'S "Adopt a Stream Program" and have adopted Canoe Creek. It is through the work of dedicated conservation groups such as the Blair County Chapter of TU that fishing continues to improve in Pennsylvania.

As I mentioned earlier, most of the materials and equipment used in this project were "bummed" or "scrounged". The list of people, companies, and organizations who have donated equipment, supplies, and/or time, is very long and quite impressive. I really don't have the space available to list them by name. I hope they

will accept our thanks and the thanks of local fishermen for helping to bring a section of the stream *back from the grave!*

One final thought: although I certainly applaud the action of the Blair County Trout Unlimited in restoring this section of Canoe Creek, I have always wondered why it was necessary for this section of Canoe Creek to have been destroyed in the first place! We cannot continue to allow bulldozers to wander aimlessly up and down the channels of our streams — all in the name of progress. There have to be alternative methods of building roads . . . methods which won't require the destruction of miles of stream. Pollution is certainly bad enough. However, once the source of pollution is "turned off," most streams will eventually recover. But, when a stream is dredged or otherwise altered physically, chances are the damage is permanent. Unless, of course, an outfit such as the Blair County Chapter of TU moves in to lend a hand!

(See more photos on next page.)

Canoe Creek Cleanup

During the Canoe Creek litter roundup Waterways Patrolman Walter Rosser gets a big hand from George Koon, of the Altoona Chapter of TU and Ron Walter.



These volunteers turned out in force despite the cold and an early April snow-storm. This drive netted nearly half a ton of litter from Canoe Creek's shores!



Blair Countians do things in style! That's Mrs. Tom Wolfe and Mrs. Robert Beck, serving up hot dogs to the cleanup crew on that cold day back in early April!

Throw away the plank & eat the carp!

by W. Lee Miller, Jr.

What fisherman hasn't read the time-worn recipe for cooking carp: "Nail the fish to a plank, put it in the oven for four hours, then throw away the carp and eat the plank"?

Well, hold onto your can of corn while I tell you that carp, properly cooked, as all food should be, is a taste delight.

My wife and I own a cottage on a small lake that includes among its finny inhabitants a large number of carp. We fish for them off the dock during the hours when bass and pickerel are not hitting and we find that battling a big carp on light spinning tackle is a lot of sport. But we always release the fish.

One morning this summer, while I was in the process of landing a plump carp, a neighboring cottager came to the dock. When I informed her that I intended to release the fish (which, incidentally, weighed nine pounds), she asked for the fish and told me her family was quite fond of carp. I gave her the fish with a dubious look that must have betrayed my ignorance of culinary artistry.

That evening she came to our cottage with a plate of golden brown fillets. She said she thought we might like to try some fried carp and she assured us she would not be insulted if we found it distasteful. Then she left.

We sat for a few minutes gazing at the platter . . . then we screwed up our courage to the point of tasting a small piece of the meat.

We ate the whole plateful!

Later our neighbor (and she didn't say, "I told you so!") gave us her recipe for cooking carp.

First, fillet the fish. The bone structure of a carp is very much like a cage, with the ribs circling from the backbone around into the belly, so a slab of meat can be taken from off the bones on each side, and the skin can then be removed from the meat.

Cut the fillets into pieces four or five inches square, splitting the thicker pieces so that none is more than half an inch or so in thickness. Be sure to cut out the "mud line" on any piece of fillet. This is a dark, reddish brown streak that runs along the side.

Next, soak the pieces of fillet in salt water for about an hour. After rinsing and drying them, roll the pieces in beaten egg and cracker crumbs, with salt and pepper added as desired.

Finally, fry them in deep fat until the fillets are a golden brown. Then eat what my wife now describes as: "lovely, tasty finger food"!



Five-year-old Mike Fegely found that even this small carp put up quite a scrap on light spinning tackle. The "heavyweights" can test the stamina of adults and make fine eating when properly prepared. Mike and his Delaware River carp were photographed by his dad, Tom Fegely.

“*BASS LOGIC*”

by Sam Hossler

Ever wonder why that guy down the street always seems to come home with a string of fish but you connect only once out of every five trips or so? Sure, you can rationalize those empty creels by saying the other fellow has more and better equipment, or he is just plain lucky, or any of the other thousands of excuses we fishermen keep handy. But let's face it, if 10 percent of the fishermen catch 90 percent of the fish, it is not because they have more or better tackle. Although they may well have the very best equipment it's the knowledge stored between their ears that makes the difference.

I've heard many a skunked fisherman tell how he could really tear up the bass population if he were only on the famed St. Johns River in Florida, or Toledo Bend Reservoir on the Texas—Louisiana border or any of the now famous bassin' holes throughout the south. I've been fortunate enough to have fished both Texas and Florida, and let me tell you, the fishermen there work just as hard for their bass as we do here in Pennsylvania. They may have a few more fish and they may be a little larger in size but these bass are just as smart as our Keystone bass. Pennsylvania doesn't have to take a back seat to anyone in the fishing department. Between the lakes and rivers we've been fishing for years and the new impoundments opening every year there is more fishing territory right here at home than you could work over in a decade of fishing days.

But let's look at this question of why some people just naturally seem to catch more fish than others. They aren't any smarter than you or I. No, they aren't any smarter, but they use those “smarts” to a greater advantage. How many times have you gone fishing at that old favorite hole and said, “This is the spot where I caught a nice one last spring”, and then proceed to fish that area like crazy? I did! The fact that you caught that bragging-size bucketmouth in June and it is now August doesn't even enter your mind. Or how about the fact that you were fishing in the evening and now it is midday, did you take that into consideration?

What then are the most important factors to be considered when planning a trip? Everyone has heard about water temperature and how it affects the feeding habits of the bass. Now two more points are being checked by the serious fisherman, oxygen content and light density. There are now instruments on the market that will measure all three of these factors and would be a real asset, I'm sure to any fisherman. However, at this point they are just a little beyond the average man's pocket-book.

Most of us have the thermometers, either electric or manual and use them to good advantage. But how many fishermen consider light density? It really doesn't take

any special equipment to at least come up with the knowledge that it is cloudy or bright out.

Let's assume you know the lake or river you're going to fish and you have caught some fish here before. That's great but when did you get those hits? Remember in the early part of Pennsylvania's bass season the spawning, or at least the guarding of the nests, might not have been over. So you could have been taking bass off their beds in the shallows anytime during the day or night without regard to water temperature, water clarity or anything else. But by July old bucketmouth has retreated to his natural haunts. If you spend all day throwing lures into the shallows you very possibly could go home with an empty stringer.

Fish do not have eyelids and therefore do not like sunlight at all. That's the first thing to take into consideration. We can't adjust our fishing trips to coincide with cloud cover or weather conditions, most of us fish when we have the opportunity. It may be raining, or a beautiful clear day — we go when we have the time off. The fish don't just disappear when the sun comes up, all you have to do is find their *daytime home*. I have found bass to be a little more tolerant of sunlight than say a walleye and can be taken out of the shallow feeding grounds sometimes through midmorning. If there is “structure” in these shallows you could possibly take fish here all day long.

Structure fishing has been discussed by everyone that fishes for the last couple of years. And it's no big secret, “structure” is nothing more than an object or place underwater that will provide shelter and shade to the fish. This could be weeds, an underwater drop-off, tree stumps, docks or whatever. Normally when the bass finish feeding in the shallows they begin to move towards the deeper sections of water, preferably a section that has good “structure” in it. Now I don't mean they are going to travel five or six miles down the lake, but if you know the water, find a drop-off near some shallow feeding grounds and give it a working over. This is where a depth sounder is worth its weight in lures. The deeper water will provide security and shade and this is where you'll find the big fish hiding.

On our new impoundments the structure fishing is really great. Flooded creek beds, roads, bridges and railroads are perfect places to find Mr. Bass.

Water clarity and light density have a direct relationship to each other and are on my list of important factors in catching fish. A slight color tinge in the water, such as you find in the early season, is what I like. But when the water clears you as a fisherman must adjust to the situation. Normally 6, 8 or 10 pound test line is used in our pursuit of the largemouth. Anything heavier and you're



The depth sounder is literally worth its weight in lures when it comes to finding underwater structures.

just kidding yourself. I know, down south they use 18, 20 and 25 pound test and still lose fish. But look what they're fishing in: sawgrass and weeds in Florida; tree tops and stick-ups in Texas, and when you get six or eight pounds of bigmouth heading for these, you have to be able to snub him down and turn him around. We don't, for the most part, have anything like that here. When a nice bass is hooked we can play him out in the open water. You might not think a fish could detect an 8 pound test line but in exceptionally clear water it could stand out like an anchor rope. So, the clearer the water, the smaller the diameter of the line, and don't be afraid of the two and four pound test mono on an ultralight outfit. A 12-inch smallmouth on an ultralight rod with two pound test line and you have as much fight and fun as any 10-pound southern bucketmouth hooked with a heavy worming rod and 20-pound test line. Don't get me wrong, the worming rods have their place and the ultras can't do everything. Night fishing for bass with top water plugs, for instance, is a sport for the spinning or casting rod. The flea weights just don't have the muscle to slam the big hooks home on a heavy plug when needed. But when the water is clear and 8 or 10 test line stands out like a clothesline, try using a tiny spinner-bait with 2 or 4 pound test mono. Cast it back into a deep pocket, let it settle and get ready for the strike.

I can remember one particular trip up north when we were after walleyes. The weather turned hot and clear, and even though the calendar said it was May, it felt like July. There wasn't a cloud in the sky and that bright sun boiled down on us unrelentingly. We had splurged and hired a guide who supposedly knew where the fish were. After a semi-successful morning he took us on a trolling

trip to some water that really should have held the lunkers we were seeking. Surrounded on three sides by high cliffs, a bay was formed and the water at the shore line dropped to a depth of thirty or more feet immediately. This water was so clear you could easily see better than half that depth. Our guide claimed they had really caught them here last week. OK, but what was the weather like last week? Was there a chop to the surface? This will diffuse the light rays and keep the light penetration to a minimum. How about the water clarity and water temperature? To make a long story short we didn't catch a single fish out of this area. Why? In the first place we were rigged for trolling at a depth of about 15 to 20 feet and as I said this water was much deeper than that plus the fact that the light was probably penetrating to at least the 20 foot mark. If we would have stopped trolling and done some jigging I am willing to bet we would have caught fish. They were down as deep as they could go, staying out of the sunlight on the shady side of the bay. But, just like so many fishermen, we didn't consider all the factors.

There must be ten thousand different lures on the market and probably most of them will catch fish at some particular time. No one can carry one of each of all these fish catchers so you have to boil down your choice to a few. The most popular bass bait, not only throughout the south, but right here in Pennsylvania is the plastic worm. They can be rigged weedless, the so-called Texas Rig, with a slip sinker at the head or any of many other variations. If you plan on using the Texas Rig remember it takes a stiff rod to jab that hook point through the plastic worm and into a tough bass' jaw. Most of us don't have such a rod or the experience needed to set the hook

continued on page 29

"This is the Captain Speaking"

by Capt. C.E. Leising USCG (Ret)
Director
Bureau of Waterways

As the 1974 boating season tapers off on Pennsylvania waters, we can start to analyze a bit as to what happened—that is, "take a look at the record." It was the first year under new Regulations authorized by the October 1973 amendments to the Motor Boat Law which extended the Commission's responsibility for safety on the water beyond motorboats and sailboats to include all recreational vessels. This was designed primarily to extend the requirement for CG approved PFD's for each person on board to the small hand-propelled craft such as rowboats, canoes, kayaks and inflatable rafts which were involved in over 80 percent of our fatal accidents. It would be unwise to attribute the marked decrease so far this year (Labor Day) in fatalities associated with non-powered craft solely to this change in the law but the fact is that the number of lives lost is down to 22, compared to 28 and 37 at the same date in 1973 and 1972 respectively and only 12 of them (55%) involved non-powered boats. At least we can say the long-sought amendment to our law does not appear to be having an adverse effect on safety!

Other new regulations which helped bring Pennsylvania law into compliance with the Federal Boat Safety Act of 1971 and thus eventually into uniformity with all other States as regards the more important requirements include changes in the PFD regulations making the buoyant cushion no longer acceptable for vessels 16 feet or over in length and requiring them to carry, in addition to an approved WEARABLE for each person, one Type IV (THROWABLE) device in the boat. Canoes and kayaks are exempt from these two requirements regardless of length and can satisfy the law with the cushions — although we recommend WEARABLES. Also, new requirements for livery boat operators to keep better records and to see that their boats are legally equipped before rental. And, necessary changes in boating accident reporting procedures were in effect for the first time.

But, a landmark in boating safety regulations is one we promulgated without federal urging and which sometime might be directly responsible for saving many lives we'll never know

about. This is the one which established manning and construction standards for vessels carrying more than 6 passengers for hire on Commonwealth waters. Prior to this, there was nothing required by law which guaranteed a vessel's stability or seaworthiness, the competency of its operator, the insurance liability of the vessel owner, or anything else intended to ensure safe return of persons paying a commercial operation for a boat ride on non-federal waters within the Commonwealth.

In view of this tremendous risk many families were unknowingly taking as they saw their loved ones board the S.S. LOLLIPOP for a happy time, it is disturbing to note the protest mounted recently against the Coast Guard and the Fish Commission when the Millersburg Ferry, which carries passengers and cars across the Susquehanna including handicapped persons in wheelchairs (as pictured in the Harrisburg paper on 11 August), was found to be operating in violation of her Certificate which required compliance with safety standards long established and accepted.

To argue that she should be allowed to ignore these requirements because of the historic value makes as much sense as reverting to the 19th Century building codes for wiring — or junking all the codes that have brought some safety to our mills and mines. Every major advance in marine safety has been the direct result of a marine tragedy that "couldn't happen" — including the sinking of the TITANIC and the burning of the MORRO CASTLE. None of the history buffs have yet offered to assume the responsibility the law put upon the Coast Guard if they were to waive the requirements so that the historical appearance and method of operation would be preserved. Hopefully a solution will be found but it won't be an easy one. If the safety regulations don't apply to a commercial operator making money carrying passengers, how can they be enforced against an individual who has only himself to protect?

Attendance at our 3-lesson, 6-hour Boating Safety Course took a disappointing dip over previous years although the newly acquired audio/visual tape program tailored specifically for Pennsylvania was rated a high success by all who used it. New course books for both student and instructor have now been prepared to complete the package of a comprehensive Pennsylvania oriented program which will, without doubt, be the best in basic boating safety presented by any state. We will, of course, continue our close cooperation with the volunteer organizations who also are working hard to keep boating a *pleasure* — which has to mean pretty much the same as *safe*!

But we know we can't reach everyone — we can only hope to reach most. Of the approximately 2,000 boat operators who received summonses or warnings for violations this year, thirty-seven percent (37%) were for PFD violations while about twenty three percent (23%) were for reckless, negligent operation, or overloading. The sad case of tragedy on the Allegheny Reservoir in mid-summer points up the need for us all to keep trying!

A young father, reportedly having some 500 hours boating experience and a good swimmer, had taken his little 3½-year-old boy and 2-year-old girl aboard his 15-foot runabout along with a friend of his. When the engine started to malfunction the two men turned their attention toward adjusting the throttle. Unexpectedly, a sudden movement of the boat threw both men into the water. The boat circled out of control, hitting the father and sending him to his death; the other man was finally rescued. The two tots, who should never have been in the boat without close and constant adult supervision and wearing approved PFD's miraculously escaped harm but will never forget the day they saw their Daddy go down. Witnesses reported that the operator was sitting on the gunwhale; the other man was standing back at the engine. The case could easily have involved at least four deaths. Why is it so difficult to get a simple message out to our boaters?

CO-OP NEWS

by Bill Porter

The Western Clinton County Sportsmen get the nod for this issue and, in a sense, it is a two part story complete in one issue. The point is the fact that the Clinton County club has a nursery in its own county and operates another one as part of the same project in southern Potter County.

First to the Laureilly Fork Nursery in Clinton County: The history of this half of the nursery goes back into the 1930's, when the ponds were first constructed. Three cement-walled ponds were built at that time with two more being added in 1952. Federal fish were the first residents in the cooperative venture and in 1951 the club became involved with the Fish Commission's Cooperative Nursery Program and has been an active member ever since.

An excellent water source comes from the Laureilly Fork with good flow and aeration. The setting is a beautiful, fast flowing stream, coursing down a mountain side in best tradition of a wilderness area.

Water is piped into the nursery bins

from about 100 yards upstream with a brass-covered screen set in heavy rocks doing the filtering of debris. The force of water provides good aeration and exchange through the five sections of the raceway.

The club plans a complete renovation of this nursery from the old and wide ponds with narrow keyways to the modern style endorsed by the Fish Commission. The new raceways will conform to the fast exchange styles of current construction in newer cooperatives and most of the Fish Commission's fish cultural stations.

The club has over \$1000 accumulated for the new work with materials and labor available as needed. In addition to the major construction, the club has already begun an extensive planting and beautifying activity of the site, which has a natural attractiveness to begin with.

Approximately 13,000 brown trout are produced at this nursery and are stocked in area streams, many of which are not on the approved trout stocking charts. As a result, some fine trout fishing is to be had in the smaller mountain runs of the area. Stocking is done in the fall because of severe winter weather and freezing problems at the nursery.

Harry Snodgrass, past president and former nursery manager, met us at the site. His interest and animation over the forthcoming renovation obviously reflected the spirit of the club, and then it was time to move on to Potter County and the other half of the club's cooperative fish raising project.

Ned Lunger, nursery manager, met us at his home along Kettle Creek and took us for a short walk to another attractive mountain site, the Lunger Pond Nursery, just a short walk away from Kettle Creek.

At the moment, this portion of the Western Clinton County Sportsmen's CO-OP contains two bins. Construction is a mixture of brick and mortar, a bit different than some nurseries we've seen. The ponds work well and there is intent to increase the size of the project as work progresses on the Laureilly Fork site to the south.

Water is, or seemed to be at the moment of our visit, a bit on the short supply side. Leib Run, a tributary to Kettle Creek, is tapped for the nursery bins. A pipeline extends up the mountain side to an intake system and the flow is carried down and into the ponds with aeration developed by a screen-splash system. The area is shaded and temperatures seemed acceptable at the time of the visit. The important thing was that the young trout were in good shape and seemed to be progressing nicely on their way to adulthood and some fisherman's creel.

The two sites of the Western Clinton County Sportsmen are both exceptionally pleasing to the eye. Trout are being raised in good quantity in proportion to the size of the facilities available. The club is obviously making a contribution to the trout fishing and the outdoor scene in their own little corner of Penns Woods.

This is the Laureilly Fork Nursery, in Clinton County. Harry Snodgrass and Paul Byers check nursery roster.





attached to them. Our biologists would have been interested in one sixteen-inch "warm water" brown trout that was waiting his turn to be returned from the canoe to his Rock Run home!

My personal thanks to these future sportsmen. May all their parents "grow up" to be exactly like them!

*Bill Fink,
Deputy Waterways Patrolman
Lower Bucks County*

LUCKLESS!

Last year, at the National Boy Scout Jamboree, East, Jay Sheetz of Elyria, Ohio was chosen the unluckiest fisherman of all who fished. He fished a total of 18 hours and did not catch one fish. The scout leaders tried everything to assist this lad. They spit on his bait, had him throw salt over his shoulder, and any other thing suggested. Still no fish. He was given rod and reel and told to practice till the next Jamboree.

*Cloyd W. Hollen
Assistant Supervisor
Northwest Region*

CLOSE CALL—

During a routine fish law patrol at Hereford Manor Lake, Deputy Rich Sallade observed two men fishing and one of the fishermen definitely had five trout on a stringer. Since the daily limit from a lake is only six trout, Rich was quite interested in the conversation that took place. The one man said to the other, "Your other two are in the cooler!" After hearing this tidbit, Deputy Sallade decided to pay closer attention until one of the gentlemen approached the cooler and removed the lid. Ah! The moment of truth arrived. Sure enough, there in the cooler were the "other two"—two cold beers!

*Don Parrish
Waterways Patrolman
Beaver County*

STREAM NOTES

Deputies Brown and Schlem had an unusual experience while assisting me on the stocking of the Driftwood Branch. They were parked across a railroad siding near Huntley and while carrying buckets to the stream, the train came up the siding at a very slow speed. The driver of the fish truck was about to move when the engineer shouted to him that he was OK and shouldn't move. **The crew from the train got off and assisted in carrying fish to the stream.** About 7 men from the crew assisted in this stop. On this day, a Saturday, I had about 300 persons at the stocking and though we didn't need the help, we appreciated it anyway.

The boys from the Cameron County High have done a remarkable job in assisting me stock again this year. We involved the Conservation Club, the Ecology Club, and other interested students.

*Stanley G. Hastings
Waterways Patrolman
Cameron County*

QUIT TOO SOON!

Fishing success is skill, luck and being at the right place at the right time. Three other fishermen and I began fishing at the Larabee Bridge on the Allegheny River on Sunday, February 3, at about noon. After a couple of hours of no success, we moved upstream and fished a few more hours. No luck and we went home. In the Tuesday edition of the Bradford paper appeared a picture of a Bradford fisherman with two muskies that he had caught **at the same location we had fished a few hours earlier!** The muskies measured 40½ and 43½ inches respectively.

*Bernard D. Ambrose
Waterways Patrolman
Elk County*

OPERATION "RESCUE"—

In answer to a call from Mr. Wills, of the Bucks County Health Department, we united our efforts in investigating a pollution report of a small creek in north Morrisville named "Rock Run". Field tests were made by both Mr. Wills and the Morrisville Water Company, but due to heavy rains and rapid runoff the previous night, the tests proved negative.

Most interesting and heart-warming was the interest that the neighborhood children and teenagers took in their self-styled salvage operations that were responsible for the saving of a large number of several species of fish. Both boys and girls in the area gave up their breakfast and lunch time to fill a canoe and rowboat with water while they netted and transferred all the affected fish in the area to their improvised "holding tanks" to help keep them alive until the creek was cleared of the pollutant.

Believe it or not, these fish had "names"! The children had been in the habit of hand feeding them in the pools behind their homes and were genuinely

AND AWAY HE WENT!

On most Fish Commission lakes, trespassing on the breast of the dam is strictly prohibited, and, for good reason, as illustrated by the following incident occurring at Leaser Lake earlier this year. The spillway at Leaser Lake drops straight down about four feet before becoming a long concrete chute about 200 feet long, which plunges into a fairly deep holding pool at the bottom. Two fishermen at the lake were witnesses to another fisherman's misfortune, which could have been serious, but fortunately turned out only "educational." The unlucky angler decided to take a shortcut by walking across the dam's spillway. He slipped off the wrong end of the spillway and had a beautiful slide all the way down to the holding pool! He emerged unhurt but wiser from **the longest shortcut he ever took!**

*Fred Mussel
Waterways Patrolman
Lehigh County*

GRAN' DADDY CAT!

One night, while on patrol on Harveys Lake, near midnight and very dark, Deputy Murray and I decided to see how many big fish we could see with our big spot light. We were looking into about six and eight feet of very clear water and we saw many very large perch, chain pickerel, bluegills, etc. But what really took the cake was a monster catfish we saw that surely would have been high up in the CITATION range. The unusual thing about this particular catfish was that he was almost completely inside of a groundhog-like burrow. What stuck out was a grapefruit-sized head. It looked exactly like a large moray eel looks when coming out of his hole. The burrow looked very old and well used.

*Claude M. Neifert
Waterways Patrolman
Luzerne County*

FARM PONDS —

Many fishermen have never fished a farm pond for one reason or another. Those who have never asked a farmer for permission to fish in his pond and then really fished it for bluegills in the spring and for largemouth bass in late summer have missed some of the best fishing available. Many fine catches of large bluegills were taken this past spring by just a few local anglers. Fishing for largemouth bass in late July with bugs and poppers has paid off for these same anglers. They report they have never been refused permission to fish when they have stopped and contacted the pond owner before fishing.

*Raymond Hoover
Waterways Patrolman
Tioga County*

NO TAKERS

Trout fishermen who give up trout fishing as soon as bass season opens are missing a lot of good fishing. In the last couple of weeks, I have checked some real nice trout catches on Blair County streams. On July 3, I only checked about four fishermen on Canoe Creek, however, two of these four had their limit. On July 4, I checked four fishermen on Bobs Creek and two of the four had their limit; one had seven trout. Just this past Saturday, July 13, I checked 2 fishermen on Piney Creek who had 13 trout between them. The really nice thing about trout fishing this time of year is that you have the stream all to yourself. With the low, clear water commonly found in Pennsylvania's trout stream during the summer months, the fishing certainly isn't as easy as found in April and May, but it can be very rewarding.

*Walter A. Rosser
Waterways Patrolman
Blair County*

FINDERS KEEPERS?

John and Helen Peters, R.D. 1, McClure, Pa., related the following incident: One morning, while trolling from their small fishing boat in Willow Bay on the Allegheny Reservoir, they both had strikes at the same time. Upon retrieving their lines, they reeled in two other lines to which was attached two rods and reels, the one being brand new and the other slightly used with a small perch on the hook. They were inquiring if I knew who had lost them. I didn't, but possibly one of our readers know. That is really what you call catching two at a time!

*Paul R. Sowers
Waterways Patrolman
E/Warren County*

BIG BEDFORD BASS!

Koon and Gordon Lakes have produced record bass this season. I have checked my records and found that over thirty-five largemouth bass have been brought to my home this year. These bass are in the three to almost seven pound class. Last week, Mr. Carl Judy, R D 3, Bedford, Pa., caught one that was 23 inches long, six pounds, 5 ounces. Mr. Judy also reported to me that he lost a larger one. I feel this record speaks well of these two lakes.

*William E. McIlroy
Waterways Patrolman
Bedford County*

WHICH WAY?

Not so long ago, a good friend of mine and possibly yours, was having problems with his outboard motor. I diagnosed his problem as spark plug trouble, fixed it, and told him I thought it would be a good idea if he carried an extra set of plugs with him. He then informed me that he did not know how to locate the spark plugs on his motor. I took the engine hood off, showed him one of the large black spark plug leads, and told him all he had to do was to follow the wire until he came to its end and that is where he would find the spark plug. Now, this is very hard to believe, but his next question to me was, "In which direction do I go". (If he had gone to where I was thinking of telling him to go, I am sure he would have found it hotter there than the spark plug!)

*Claude M. Neifert
Waterways Patrolman
Luzerne County*

HEAVY, MAN!

On opening day of bass season 1974, I was on patrol at Treasure Lake, Clearfield County, when I apprehended fishermen fishing without licenses. The five defendants settled on a "Field Acknowledgement of Guilt" and paid their fines in pennies, nickels, dimes and quarters, **around thirty pounds worth!**

*Edward W. Brown
Waterways Patrolman
Clearfield County*

WHODUNNIT?

Related to me by Deputy Waterways Patrolman Homer Shaffer: Charles Robonson, Harold Stuby, Robert Shaffer and Charles Robonson, Jr. were on a

fishing trip in Canada at Lake Bischofing and stayed at Shady Bay Camp. While in the camp, to their surprise, they found a copy of the Pennsylvania Angler, 1971 issue. This Angler had a shipping label on it, addressed to me! It would be interesting for me to know *who took my Angler along with them to Canada!*

*William E. McIlroy
Waterways Patrolman
Bedford County*

SOME YEAR!

I have received more applications for Citation fish awards this year than ever before. Some big ones measured have included a 29-inch brown trout, two brook trout, slightly over 20-inches, and a chain pickerel, 26 inches, all from the Lehigh River. We also checked in a carp of 36-inches from the Delaware and a musky, 46-inches and 34-pounds from the Perkiomen Creek.

*Fred Mussel
Waterways Patrolman
Lehigh County*

RIGHT ON TIME!

During the in-season trout stocking of North Fork Little Beaver River, I encountered two of the most energetic fishermen I have ever seen. Two little boys about four and five years of age were waiting eagerly for the truck to arrive at the stocking point. With their rods in hand, one little fellow squealed, "Quick! Get a worm on your hook, Here they come, right on time!"

*Don Parrish
Waterways Patrolman
Beaver County*

THANKS BOYS!

Last spring the Tioga County schools were again cooperating with the Commission in its pre-season stocking program. On March 7th, the Wellsboro High School released about 30 F.F.A. boys to assist stocking Hamilton Lake. On March 8th, the Mansfield School let boys accompany the stocking truck on Mill Creek and Bailey Creek.

*Raymond Hoover
Waterways Patrolman
Tioga County*



The Carpenter Ant Revisited

FLY TYING

by Chauncy K. Lively
photos by the author

In the December, 1962-issue of *Angler* (migosh, can it have been that long ago?) I did a piece called "The Universal Ant". It was a general discussion of the role ants play in fly fishing and in the article I mentioned a dry fly pattern called the Carpenter Ant, with which I had been experimenting for several years on both trout and panfish. It was a simple pattern, made entirely from a single bundle of black-dyed deer body hair, with gasters, or bulges, in the appropriate places and a few hairs bound back at the head to represent legs. Although the *Angler* article included a photograph of the Carpenter Ant, the tying was only briefly described in the text and detailed illustrations were omitted because of space limitations. It wasn't long afterwards that I was taken to task on two points.

The following summer I met a talented young fly-tyer on the Letort who reminded me that an ant's legs originate at its midriff, not its head. Actually, I had noticed this, too, but since the pattern had been intended

as impressionistic I felt that the latter placement was probably more expedient. Buy my young friend had made a good point and I couldn't quarrel with his realistic approach, particularly on the Letort, where such seemingly trivial matters are sometimes important.

Then, sometime later, I was chided by several friends for not having illustrated the tying sequence in the *Angler* article. So, to atone for my sins of the past, albeit belatedly, I am herewith presenting a corrected version of the Carpenter Ant with illustrations showing the various steps in its dressing. And along with that I may as well clear the slate and apologize to any ants I may have offended for having mislocated their pedal extremities.

I have been tying and fishing the Carpenter Ant for nearly fifteen years now and with it I have caught trout in just about every stream I have fished. Although it is primarily a hot weather pattern there have been several occasions when it worked wonders on opening day, but of course those were the lucky times when weather and water conditions were just right for fishing dry in mid-April. During the hottest months it is a highnoon fly on bright days when terrestrial insects are most active and trout lie along grassy banks, waiting for whatever fare the currents will guide their way. But, to me, of all seasons, Autumn is the time of the Carpenter Ant. The mountain streams open during the extended season are generally low and they are possessed of a clearness unsurpassed at any other time of the angler's year. By early October the fallen leaves of the hardwoods begin to drift with the flow and build up at the tails of slow pools to form additional overhead cover for trout. The gaudy colors of the leaves seem to complement the pre-nuptial complexion of the trout and altogether it is a time when Nature's galleries are at their brilliant best.

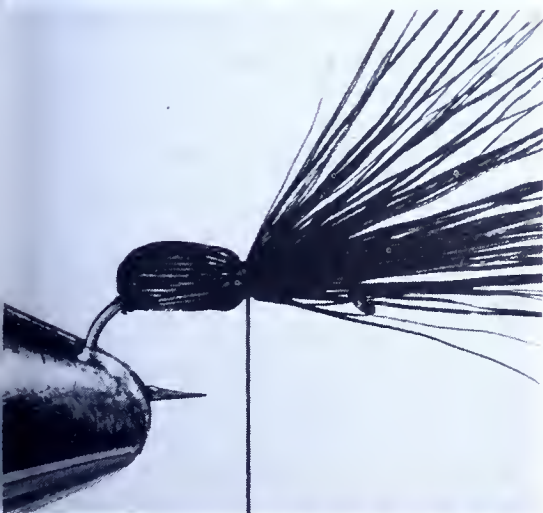
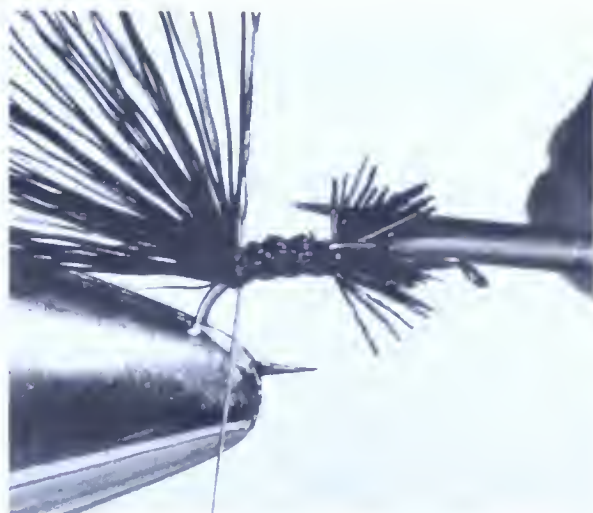
Although the real Carpenter Ant is a large insect, warranting in its imitation a hook of perhaps size #12, I use the pattern mainly sizes #14 through #18, preferring the winged, fur-bodied ants in the really diminutive sizes since they are a bit easier to see on the water. But if your eyes are extra keen and can follow the tiniest speck on the surface, by all means try the Carpenter Ant in sizes #22 and #24.

The pattern owes its buoyancy to the hollowness of deer body hair and to the compression of the hair into bulging gasters, trapping air within. But these same attributes also contribute to the somewhat fragile characteristic of the hair and for this reason it is prudent to use eight or ten hairs for legs instead of Nature's allotment of six. This will compensate for the inevitable loss of a leg or two to the sharp teeth of trout. As to the placement of the legs, it is perhaps more aesthetically satisfying to position them at the waist but I frankly haven't seen any improvement in the effectiveness of this over the pattern's original version. When ants drift sodden in the surface film their legs are generally askew in an unpredictable posture and not in any definite arrangement as when they are crawling on land. So, take your choice and tie whichever version pleases you; I'm sure the trout won't care. (*Editor's Note: We do not maintain a supply of back issues of the Angler. Therefore, we will be unable to fulfill any requests for the 1962 issue mentioned by the author.*)

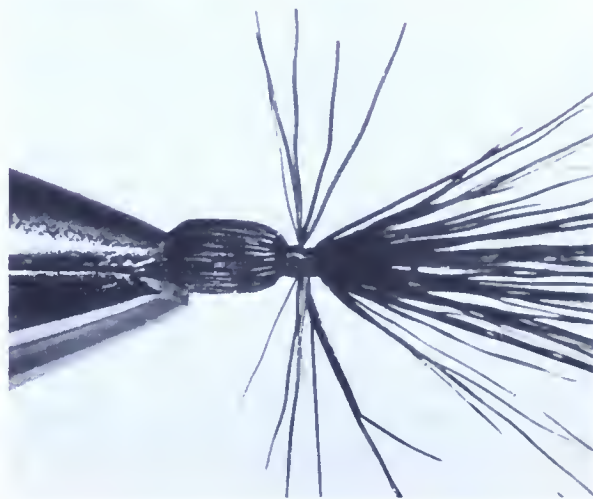


◆ 1. Clamp a dry fly hook (16 shown) in vise and tie-in black nylon nymph thread at bend. Spiral thread forward about 1/3 length of shank and half-hitch. Then cut a bundle of black-dyed deer body hair about twice as thick as a kitchen match.

2. Hold hair in left hand over hook with tips pointing left and butts projecting slightly forward of half-hitched thread. Make a double loop of thread around hair and shank, then pull tight, causing butts to flare. Then tightly spiral thread in spaced turns back to bend. Half-hitch. Trim off flared hair butts.



◆ 3. Wind thread forward in tight spirals, spacing the turns equally and crossing the already wound thread in an X pattern. Half-hitch over trimmed hair butts. Then pull the bunch of free hair forward, over the shank, and stroke toward tips to remove any slack in individual hairs. Holding hair over shank with right hand, with left make a loop around hair and hook, then pull tight.

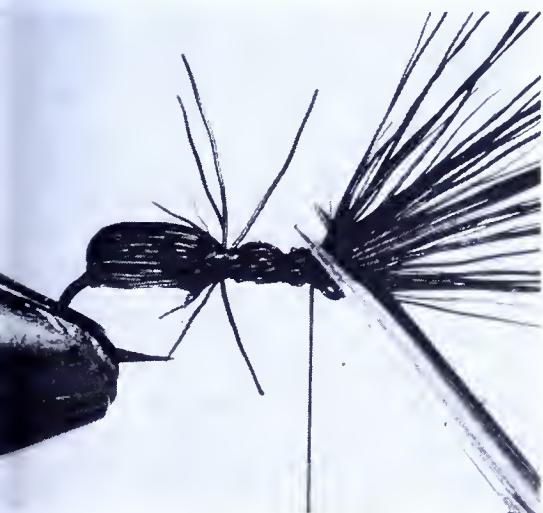
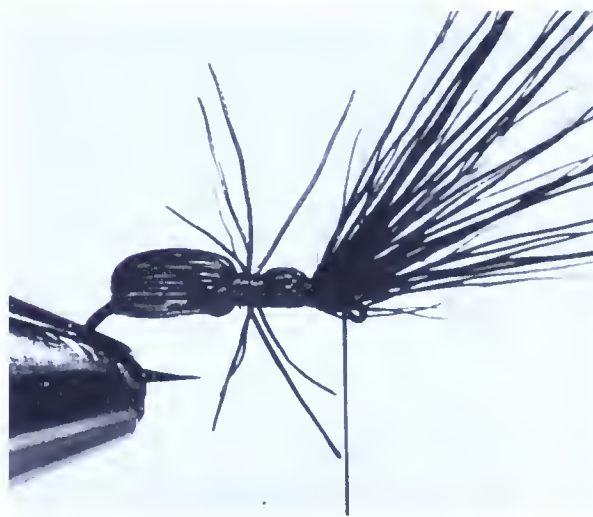


4. (Top view) To represent waist, wind thread forward tightly around hair, and shank for about four close turns. Pull back four or five hairs on each side to represent legs, then continue waist ahead of legs with four more close turns.



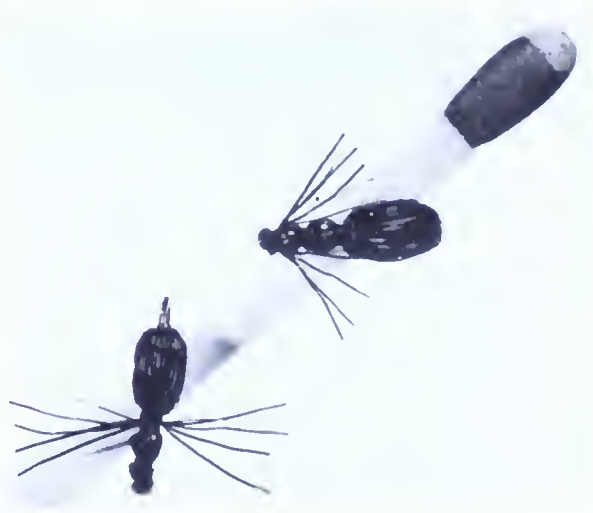
◆ 5. Trim legs to desired length. With left hand lift remaining bunch of hair while winding thread forward, around shank only, to about 1/2 the distance to eye.

6. Form small gaster by holding hair over shank, throwing a loop of thread around hair and hook, then pulling thread tight. Again, lift hair and wind thread forward around shank to a point just behind eye of hook.



◆ 7. Repeat previous step to form another bulge representing head. Then trim away excess hair as shown and whip finish thread at eye. Remove thread and apply head lacquer to whip finish.

8. Matching the hatch. Completed Carpenter Ant below; original version above.



Keystone Camping

A Camper's Medical Kit

If they have camped for a few years, outdoors families learn the need for occasional medical attention while on some of their trips.

The camper can help himself immeasurably by carrying a useful medical kit. Serious or unusual ailments, of course, need the attention of a physician, but quite often simple recognizable problems can readily be alleviated if the kit is kept in a special nook of a camper.

Common camping problems center themselves around such malaises as burns, especially sunburn, blisters, bites, bruises, cuts and sprains, stomach upsets and queasy feelings, and headaches. You either ate something that didn't agree with you, exercised too much, spent too much time in the sun, or stubbed or scratched a body extremity in contact with Mother Nature.

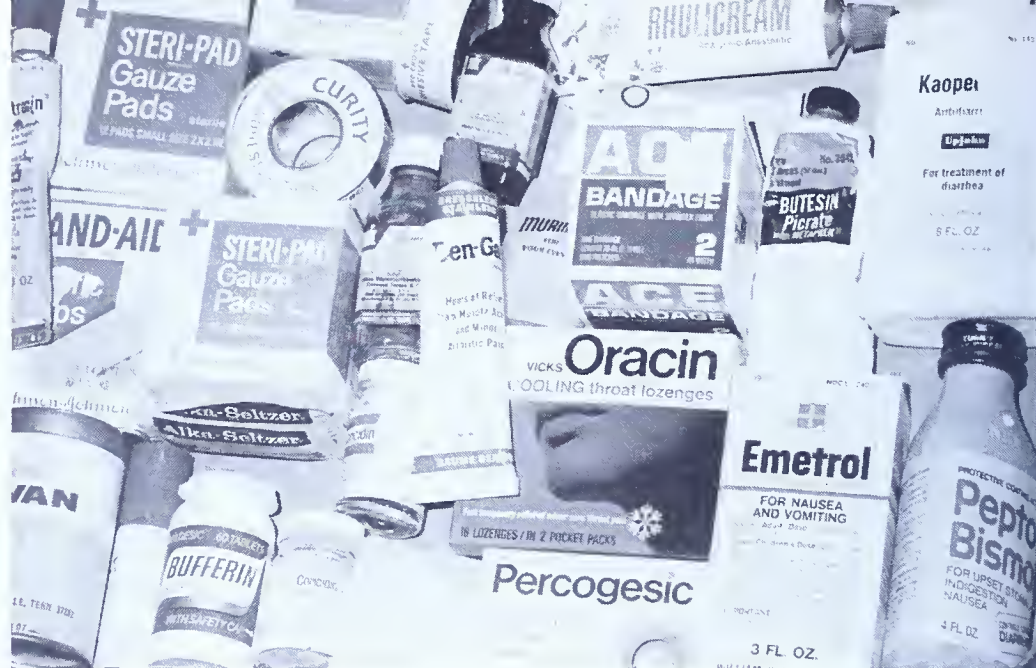
Even the pet, if taken to permitted places, may not escape the need for medical attention. On one trip, we contacted a vet by phone late at night to inquire about our ailing dog. After asking for symptoms, he explained the pooch had been living "too high off the hog."

"What have you been feeding him," the vet asked. "A few trout we failed to finish," I answered. "Give him something to settle his stomach," he said and hung up. Fortunately, we had the proper medication, and the pup lived on ice chips and stomach settler for the next two days.

On another occasion, my wife's sprained ankle was readily cared for with minor interruptions because the required wrapping was available to keep discomfort to a minimum. But on still another trip our youngest sat on the edge of the car seat for a considerable distance while we buzzed home to get medical attention for his back. He spent too much time in a swimming pool and the sun on that day and we had forgotten our kit.

The common range of ailments readily alleviated by a handy kit usually center themselves around:

1. Stomach upsets. What may give



The same variety of medical aids contained in the home medicine cabinet are valuable to the camper.

one member of the family the "Green Apple Jumps," strangely may cause another to become constipated. Medication both to tighten and loosen the digestive system should be available. Queasy stomachs often occur for youngsters and ours asked for the "Green Medicine," Emetrol, a prescription provided which they depended on to care for tummy pains.

2. Bruises, bumps, cuts and sprains. Bandage wrap for wrists and ankles which are most easily sprained, should be on hand. Camping is an active function and there are many situations for bruises and sprains to occur. Swelling from bruises may be quickly alleviated by witch hazel and aches may further be helped by liniment-type ointments for comfort later in sleeping. Cuts may result from the use of knives, fishhooks, axes or from debris one encounters. Iodine, merthiolate, band aids, gauze, adhesive tape and similar items should be available to care for these quickly. Small side-cutters or snippers, scissors and tweezers often help to extract foreign objects and splinters.

3. Blisters and burns. Sunburn is a prime cause of discomfort if a member of the family gets extra exposure as often is the case. Relief in the form of soothing lotions should be readily at hand. Frequently, campers also suffer blistered lips during the first few days of an outing. Some folks take extra doses of Vitamin C at such times while others go to ointments. The blistered lip is a strange vacation malady which hits some repeatedly, such as myself, and is difficult to cure for the first few days. Burns may also occur at the campfire stove

where one should be particularly cautious, but also ready with medication should an accident occur.

Blistered feet are a common occurrence, either from extra hiking or by the use of deck shoes or sneakers as needed in a boat. These may cause that common malady, athlete's foot, to blossom and a foot ointment should be kept on hand. I like Sopronol for my occasional problems.

4. Sore Throats, Headaches. Aspirin and throat lozenges are exceedingly helpful, but one certainly should see a physician if either persist.

5. Poison Ivy. Found almost anywhere, too often the camper and angler, carelessly fails to recognize it. Youngsters are prone to play in it and thus often suffer. A number of lotions are available to alleviate pain from the blistered areas which result.

Setting a small case in a cool spot or special drawer in the camper to which one may turn for medical aid is a wise gesture and vital necessity for the camper. A "mini-aid" kit for the tackle box for the angler may also be very useful. Like a shear pin for the motor, it is desperately needed when something unusual happens.

The medical kit should be assembled with the advice of their own family physician for their special family needs. If the camper travels to unusual altitudes, it may also be wise to get a medical checkup. During one trip to the Rockies, our one son had profuse nose bleeds every time we got above a certain altitude. A dab of cotton, soaked in hydrogen peroxide stuffed in a nostril, stayed the flow.

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

Fish Fact: Bass in cold northern waters are inactive during the winter months. They hole up in available cover such as crevices in rocks, deeply undercut embankments, and driftwood or logs in a lake or stream.

Jigs are No. 1 bass lures for a very good reason. The biggest bass find safety in deep water, where a jig can get down to them and perform properly to attract their attention. Smaller bass are found along the shallow shoreline waters.

Trolling with a motor will not necessarily frighten fish. As a matter of fact, the commotion of the propeller may actually attract the attention of fish and draw them within range of the lure that is being trolled.

Don't cuss weeds when you encounter them in a river or lake. Weeds provide hiding places for fish and also attract minnows and insects on which fish feed. Use weedless lures or surface lures that will ride over the tops of the weeds — and be willing to pay the penalty of being hung up now and then.

Members of the pike and bass families are especially attracted by lures with plenty of red coloring. The fish seem to react as do bulls to red cloths waved in front of them.

Lunker fish can be caught by using combinations of artificial lure and bait. For example: A June bug spinner with a nightcrawler or minnow.

Wobbling spoons with a small pork strip attached to the hook are top lures for northern pike and big pickerel. One word of caution: Fish such a combination so that the spoon actually wobbles. Too fast a retrieve will make the spoon spin, and then it is not an efficient pike lure.

Use of a monofilament leader slightly longer than the casting rod will prevent wear and tear on the casting line itself.

If you buy a fly line with a weight forward or torpedo taper, remember that you must get 20 or 25 feet of the line beyond the tip of the rod before you can cast it properly. Shooting distance cannot be attained if some of the heavy taper of the line is still in the rod guides.

Pickerel may be smaller than their cousins, northern pike and muskies, but they are stouthearted and put up a good battle on light tackle.

Big streamers are proper lures in the early months of the season, when streams are high and often "roily". But as the season moves along, and the water level drops, streamers tied on a Size 8 or 10 hook are more effective. The big streamers come back into their own at the end of the season, when fish begin building up fat for the winter period.

Hair frogs are excellent lures, provided they have legs long enough to move realistically when the lure is retrieved with short twitches.

Small flies demand the use of leaders with fine tippets.

Gurgling surface lures, made with metal wings that cause them to "swim" on the surface, sometimes take fish when retrieved steadily. But more often they produce strikes if they are barely moved over the surface. The "wings" won't flap, but they will cause the plug to wobble slightly with even the lightest action of the rod.

BASS LOGIC

continued from page 21

like you're trying to stop a train. I've found I miss less strikes and have more fun using a long shank hook weighted slightly at the eye. Then I run the hook point into the worm head and bring it out with the point up. With this rig, when you get a "pick-up" or that gentle "tap — tap" indicating your bait is being tasted and you send that barb home you are driving the hook into fish, not plastic.

For early morning (or evening fishing) when the bass are feeding in the shallows, a floating minnow-type lure, either jointed or straight, is my preference. These come in all sizes and colors and some days the bass seem to prefer the four-inch size. Then, the next day they won't take anything but the little two-inchers! After dark I've always done best with top water gurgling lures. They splash and pop along creating a disturbance that you think would scare away every fish in forty miles! But the bass love 'em. I am convinced they strike out of sheer frustra-

tion and meanness at these noise makers. I've mentioned the weighted plastic worm and it can be used at any time but is especially good for the deeper waters along with the spinner-baits or "safety-pin" lures as some people call them. They cast like a bullet and sink rather rapidly which sets the spinner blade twirling, then when they hit bottom or the desired depth they can be either brought back like a jig by bouncing along in an up and down motion or in a straight fast retrieve. I don't know what it is but they are driving the bass crazy.

Smart fishing is nothing more than common sense applied to a fish's point of view. Just remember, they don't like sunlight. If you do your planning around that I am sure your catch percentage will improve. Find the structure that will hold the fish in a given area and use the smallest diameter line you can get away with. Fish these areas to the best of your ability, you're bound to catch your share.

Ashore & Afloat

by Gene Winters

This is the time of the year when the lure of the water has been, of necessity, pushed into the background of the mind, relegated to pleasant memories of the past summer's adventures and agonizing acceptance of the wintery days ahead. But these coming months need not be bleak, dismal and unproductive. On the contrary, with insight, imagination and proper mental attitude, they can be almost as satisfying and enjoyable in their own way as the active boating months. There is always maintenance of the boat or trailer. Modifications and changes to the interior of the boat to make it more adaptable to your needs. Plenty of time available for the prudent boatmen to reflect on practices and happenings of the season past. Or, time to hit the books to learn more about the sport we cherish most.

The wise boater, for example, can take the long winter nights to chart new horizons for the next boating season. With the mobility of today's modern, trailered boats, it is easy to hop from one section of a river to another or from river to river. Cracking a book or delving into the boating magazines lets one review fundamental boating principles or chart one's mind on an exciting course into new knowledge. Around each new bend in the river is the new, the mysterious, the unknown. Though they seldom offer the great open expanses such as the Chesapeake Bay, rivers offer backyard boating with a lure and fascination of their own. Don't ever let the big water boater put you down, men of the river. How sad I feel when I hear a river boater half apologizing when discussing his boating experiences with a man of the open sea.

River boating is challenging and demanding and many an open water skipper would flounder his first time out on a wind-whipped, whitecapped river. In fact, if you master good river piloting techniques, you will have less trouble adapting to a large bay than the boater coming from bay to river. River running requires just as efficient, albeit different and unique, techniques than the large water or coastal area boater practices.

Sometimes river boating requires adapting to local customs and practices that outweigh "going by the book". While tidal boatmen are accustomed to fluctuating water levels, inland boaters on rivers and lakes often also face changes occasioned not by tidal rise and fall but seasonal rains and sudden hard downpours (like the flood of 72?). Then, too, the river boater faces waters often loaded with debris, both natural and manmade. Strong winds can quickly change water levels, literally

lowering water windward and piling it up on the leeward side. Strong, gusty winds can produce a short, tricky chop on rivers and lakes that lets three or four whitecaps smash against your hull at one time with thundering force.

River depths vary from practically no water to depths so great they have yet to be found, much less measured. River piloting may call for more gear, such as ground tackle, and in various assortment of size, type and shape. Many areas in the Susquehanna have sudden "holes in the bottom" where depths go from 15 feet to 80 feet in the length of a boat. Depths that would stagger the mind of many a bay boater. Rock-ribbed waters present a constant challenge to many river boaters. In one afternoon you can find mud bottoms, grass or sand bottoms, and river bottoms with boulders almost the size of a house. Proper running speed in unfamiliar waters and constant attention to a good depthfinder helps keep you afloat. A good forward lookout also helps. Watching and studying the techniques of the "locals" often makes it possible to emulate the boating knowledge that took years for the "old salt" to acquire. You are the wiser to heed local customs and boating techniques and be guided accordingly.

Generally speaking, river currents will always flow in one direction although they may fluctuate greatly in velocity. Shoaling is a serious problem in many rivers. Spring rains and floods often build up current velocities greater than any other time of year and they must be faced first after a winter layoff. Silt may pile up in river bottoms during winter months and spring showers may wash more into the water from the banks. The river bottom may change constantly or from season to season. Changing conditions require constant attention by the Pennsylvania Fish Commission so special markers and aids to navigation may be properly placed to assist the river pilot.

River boaters should learn, too, the variations of surface water currents as they affect the operation of their craft and note current fluctuations from bank to mid-stream. Carry the strength of a mid-river current with you when running downstream. Friction is also less when running with a favorable current as well as in deeper water. Returning against the river's current, run closer to the bank to lessen the opposing flow. Make basic factors work for you, rather than against you. Current and friction are significant enough factors to be remembered at all times, even in river boating. When running the shoreline upstream, stay alert for stumps, boulders and snags.

Learn to read your wake. Determine what it looks like and you will soon be able to read any change in the normal wake pattern as an alert signal that something has changed. The smooth rolloff of the wake give way to sharper little "breakers" when running into shallow water. The sound of the motor changes, too. Use your eyes and your ears (and your head). When you run into an area where submerged tree stumps, brush and rocks lie close to the surface, the wake pattern will change. When the wake goes into short, peaked breakers closing in towards the stern, move away from the side where the wake is building. If you anchor, drop the hook off the



A day on the river really whets the appetite. The author's wife and son unload for a shoreline picnic.

bow. If anchoring for the night, drop the hook near the shoreline and tie a stern line to the nearest tree or permanent structure for additional security. If you anchor from the stern for any reason, watch that line while the prop is turning. At night, be sure to fire up that anchor light for added protection against being run down.

There's an area that needs special attention - ground tackle (anchoring gear). If you don't have room (make room in larger boats) for more than one anchor, make sure you choose the proper type for the boating you do. Remember the type that works best in mud or sand will not be your best bet in rocky anchorage areas. Make sure you have sufficient anchor line for water depths you are likely to encounter. At least five times the deepest water in the area will let you pay out enough line to keep the anchor from dragging. In extremely rocky areas, you will probably want to rig a "trip line", an additional light line that runs from the anchor crown to the surface and attaches to the boat with your main anchor line. If the anchor snags in the rocks, you simply pull the trip line, raising the anchor crown first and freeing it. Though law does not require one at the present time, no boat should cast its hull upon the water without sufficient ground tackle aboard, ready for *immediate* use. Power plants do fail and without proper anchoring equipment you may find the current carrying your boat into a position of inconvenience, possibly danger.

I'm not going to get into a discussion of anchor types or make a recommendation. It is beyond the scope of this

article to delve deeply into anchor design and selection. There is no perfect answer, for there are too many variables. River bottom, size and type of craft, water depths, etc. all determine final choice. But it is paramount that choice of anchor be one that will, with proper scope, hold firmly and not drag. My 21-footer, which hits the water in lakes, rivers, bays, and occasionally coastal waters, carries three anchors. A 13-pound storm anchor, an 8-pound for normal anchoring and a 4-pound to drop when it's time for a quick stop for lunch. My 14-footer carries a 15-pound mushroom and a small fluke type anchor. Each anchor has its own line, there's no time for adding or changing lines in an emergency or when a sudden squall rears its ugly head. All anchors are kept chocked or lashed as a tumbling, flying anchor in a storm-tossed boat can hole you as quickly as a rock or injure persons on board. There are plenty of good books available on anchors and anchoring techniques. Many anchor manufacturers offer booklets filled with facts and information, free for the asking in many cases. Good reading over the winter months.

Developing boating sense requires a never ending quest for knowledge. Never stop learning. Read, read, and read some more. Then study it, hard! Next spring, get out and try out the techniques you've learned and see how they apply in practice on the water. No one is born an old salt, he has to survive on the sea long enough to earn the title. When it comes to safe boating, there is no such thing as being too well educated.

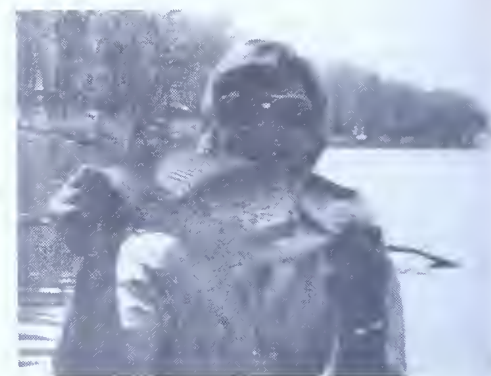
FISH TALES



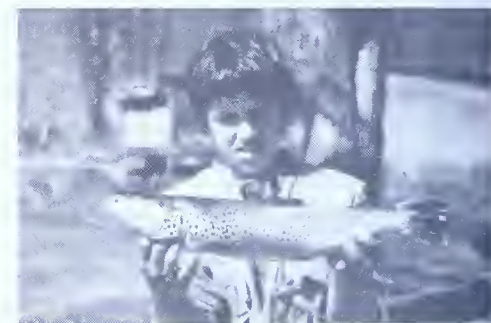
Angler Dave Erlanson, of Ridgway, holds the 15 1/2-inch 2-pound crappie caught in the Ridgway Reservoir, Elk County, last May.



Another young fisherman, Larry Weiss, Jr., 12, of Fairview, caught this nice 19 1/2-inch, 2-pound rainbow trout in Elk Creek.



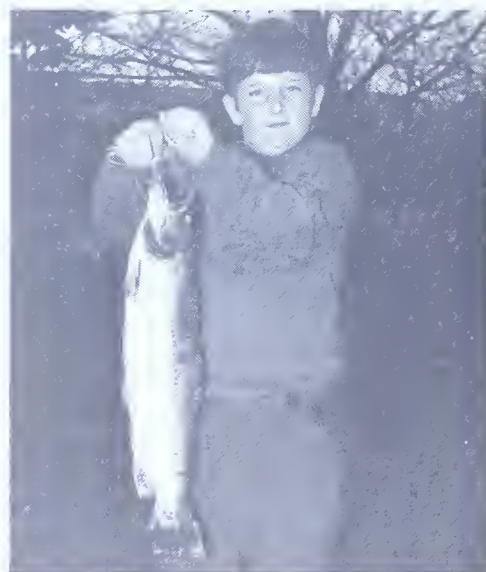
Ed Gabel, of Steelton, is proud of the 14 1/8-inch, 1 1/2-pound crappie caught in the Susquehanna River, Dauphin County, last May.



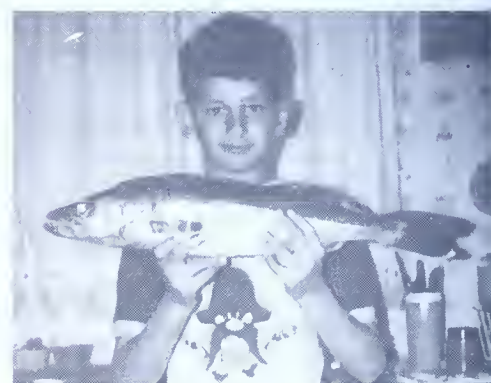
Rick DeLong, 13, of Johnsonburg, holds his 20 1/2-inch, 2 3/4-pound brown trout caught in the W. Br. of Clarion River, Elk County.



John Kitchings, 13, of Harmonsburg, was fishing Pymatuning Lake, Crawford County, when he caught his 24-inch, 4 1/4-pound walleye.



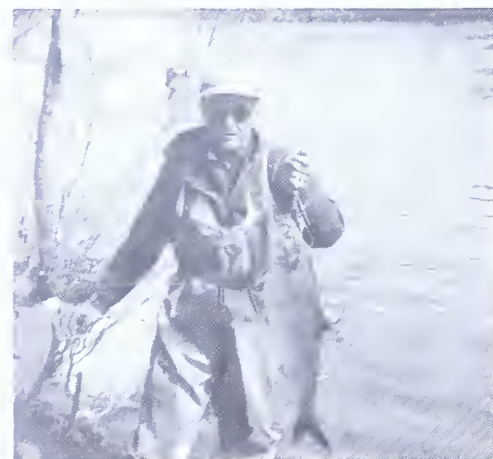
Michael Wolfe, 7, of Allentown, proudly holds his 22 1/2-inch, 5-pound brown trout taken from Lake Wallenpaupack on opening day.



Chris Hall, of Meadville, shows the 24-inch, 4 1/2-pound walleye caught at Tamarack Lake in Crawford County, last May.



Dale Donovan, 12, of Newville, caught his 14 1/2-inch, 1 1/4-pound brook trout last April from the Yellow Breeches in Cumberland County.



William Nagle, of Schuylkill Haven, was fishing the Delaware River, Northampton County, when he landed this 26 1/2-inch, American Shad.



Little Sandra Kisko, 6, of Renovo, caught her 17 1/2-inch, 2-lb., 5 1/2-oz. brook trout from Alvin Bush Dam in Clinton County on opening day.

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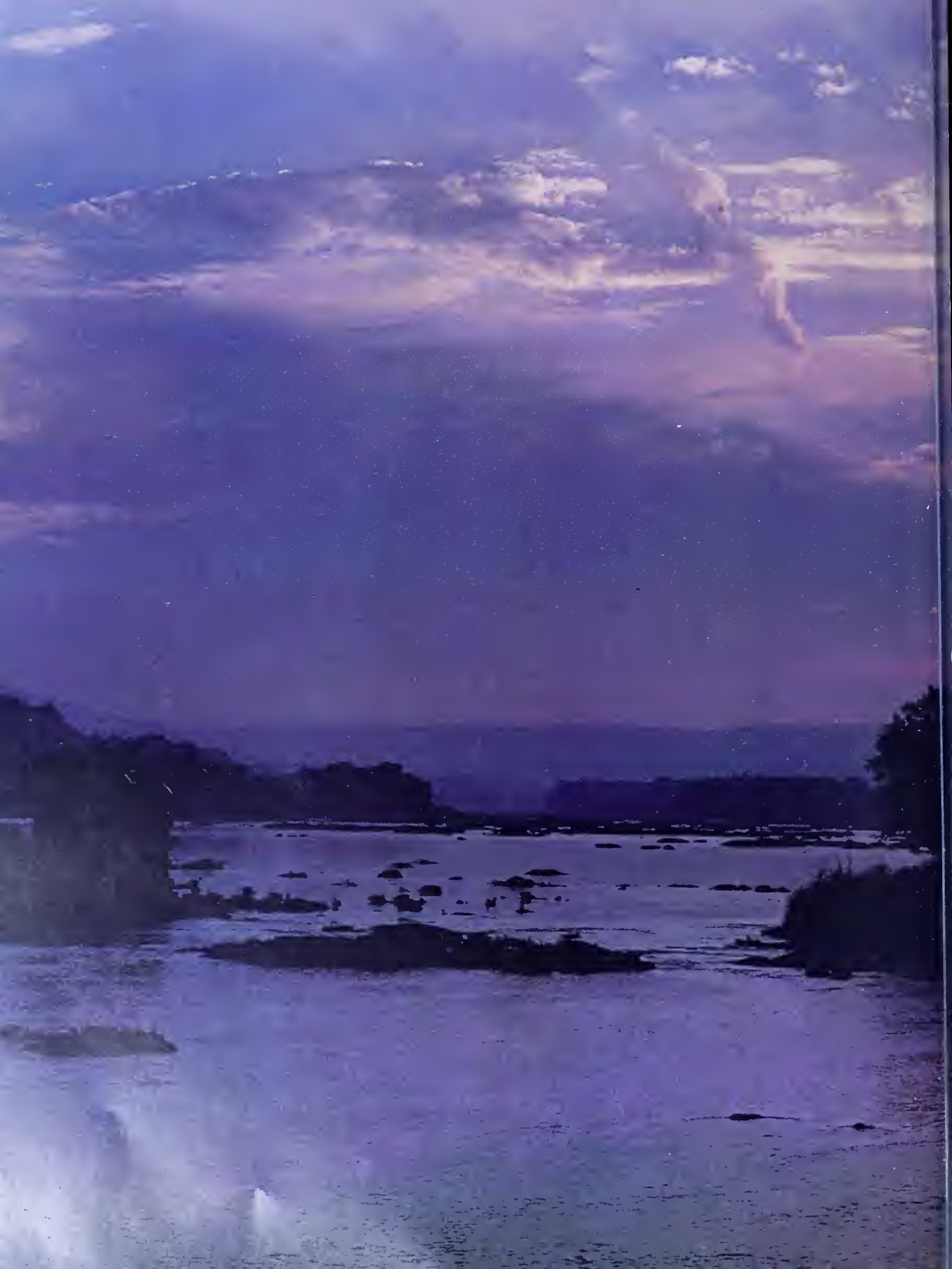
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PENNSYLVANIA

DECEMBER, 1974

Angler

the
**Keystone State's
Official
FISHING·BOATING
Magazine...**

30
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Another Crossroad

As we look at the reports from another election day, independent administrative agencies try to pick out friends and adversaries from the emergent victors. From where the sun stands this day, we realize that we have lost some friends in the House and Senate; but perhaps gained some potential friends. Even independent agencies must consider, realistically, the potential results from the electorate having had their say.



At this point it might be worthwhile to outline to our readers that, *independent* as we may think we are, both of the independent administrative agencies — Fish and Game — must remember that to a significant extent, they are under the Governor's jurisdiction, and certainly at all times sensitive to the whims of the General Assembly. The latter could wipe us out with one bill.

We are, under the Administrative Code, required to purchase all of our fixed assets, materials and supplies, through the Department of Property and Supplies; all of our personnel matters are subject to the purview of the Office of Administration, directly under the Governor; our fiscal matters are always subject to review and whatever action the Office of the Comptroller (Governor's Office of Administration) might mandate. In other words, we are not as *independent* as most sportsmen and the general public may believe we are.

In other respects, with a remarkable degree of accord, we work very closely with the Department of Environmental Resources in enforcement of the Clean Streams Amendments, the Water Obstruction Act of 1913, and in many other ways work arm-in-arm with our compatriots in dealing with solid waste, mine drainage, dams and encroachments, and a myriad of different activities that influence water use and, indirectly, land use.

Independent as we may wish to call ourselves, we are very much affected by the results of statewide elections. Members of the General Assembly can exert powerful influences over our considerations and we hope that we will always have enough social and political wisdom to abstain from flying in the face of adversity.

Thus it is that on the night when statewide election results were announced, we looked for friends and patterns for the future. This year, with the effects of 12% inflation, mandates of collective bargaining, and the backswing of the environmental pendulum — with its eroding effect on all those great gains of the late 60's — we pause to reflect on the future.

Certainly these are not the best of times . . . neither are they the worst of times. They're certainly not times for the relegation of our past gains to the apathetic or the timid.

Frederick Law Olmsted, one of the original National Park Commissioners, over a hundred years ago said, "Integrity, general education, business experience and good taste do not in themselves qualify men to guard against the waste of essential values. There are thousands of estimable men who have no more sense in this regard than children."

With confidence in the future, we hope and we pray — and banking more on the *latter* — we believe that we are going to succeed.

Ralph W. Abele,
Executive Director

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The Covers: It's not a bit too early to begin preparing for ice fishing.
Each year more anglers don warm winter clothing and give this
fascinating sport a try for the first time. These anglers are pursuing
the many species available in Harveys Lake, in Luzerne County.
Photos by Russell Gettig, Staff Photographer.

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James F. Yoder, Editor

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Fishing Outlook

by George Dolnack

If you're a typical trout fisherman and just can't wait until next year's spring opener to try for this wily member of the finny tribe, there are a couple of ways for you to satisfy that irresistible urge.

First there's the winter trout season that opens on December 1st, on all lakes and ponds 10 acres or larger in size. The minimum length is 6 inches with a creel limit of 3 and the season closes at midnight, February 20, 1975.

To accommodate the winter trout fisherman, trout lakes scattered across the state have already been stocked in preparation for the coming season.

Geographically, the lakes are spread fairly evenly throughout the state with the highest concentration in the northeast. But no matter where you live, at least one is within easy driving distance of your home. To find out which one this is, your best bet is to contact your district waterways patrolman.

Unless some skim ice appears, the water in these lakes will be open during the early part of the season and afford both shore and boat fishing.

In the northern regions of the state, the freeze usually starts during the end of December. Those in the lowlands, such as the southeast, start to ice up around the middle of January and at times not until early February.

If by chance there is skim ice on the lake you choose to fish, open water usually can be found near the spillway or where a stream or spring empties into the lake. The moving water in these areas is enough to keep ice from forming until a frigid cold snap arrives. And if old sol cooperates, skim ice that has formed overnight, is often gone by afternoon.

Worms, minnows, salmon eggs (and, forgive me) velveeta cheese, corn and cocktail marshmallows are favorite baits and all catch fish. Spinners like the Panther Martin, Mepps and C. P. Swing are also used with great effectiveness by anglers working the shoreline; and lakes that drop off quickly make excellent shore fishing.

Unless a lake has been "dug out," the bottom contour will usually follow the original topography. So to find out what it's like beneath the water, obtain a topographical map of the area and sketch in the lake. From this you'll be able to get an idea of the lake's bottom structure.

Winter trout fishing techniques aren't any different from those used during other times of the year and in-

clude still fishing, spinning, fly fishing and bobber fishing. The best one for you is the one that catches fish, but don't be bashful about experimenting.

Since trout have a tendency to be a bit slower in taking the bait during cold weather, many anglers use a slip sinker rig when fishing on the bottom. This enables the trout to take the bait without feeling much resistance except that of the line which is sliding through the center hole of the sinker.

In addition, wet flies such as nymphs and black gnats take trout from shore. And sometimes you can entice a lunker from his hiding place with a medium size streamer.

For the angler living in the Pittsburgh and Philadelphia areas, our two most populated sections of the state, there are the lakes available to you, too.

The southwest offers a choice of North Park Lake, Allegheny County; Brady Run Lake and Hereford Manor Lake, in Beaver County; Virgin Run Dam, Fayette County; Ryerson Station Lake, Greene County; Laurel Lake, Somerset County; and Canonsburg Lake and Dutch Fork Lake in Washington County.

In the southeast, you can try Antietam Lake, and Scott's Run Lake in Berks County; Levittown Lake, Bucks County, and Lights Dam in Lebanon County.

And remember, fishing is not permitted from dam breasts.

For the purist who prefers a trout stream, there are the FISH-FOR-FUN projects located throughout the state which are open year around to trout fishing. On these havens for the fly fisherman, it's *flies only* except on Warren County's Caldwell Creek where spinning lures are permitted.

You can keep one trout on these streams providing it's at least twenty inches long, except in Fisherman's Paradise on Spring Creek, Centre County.

Wading on these stretches is prohibited except at designated crossover points. Other applicable regulations are posted on the individual streams. Since the emphasis is on fly fishing only, it's illegal to tote along bait, spinners, or other types of lures.

While the water temperature is not particularly suited for vigorous feeding, the trout still eat—but not as much as they do during warmer weather. They're feeding on the bottom this time of year so you'll have to go deep for them with nymphs fished very slowly.

Light colored or brown patterns work well and depending on water conditions, they'll take wets in sizes from 10 to 28 with the larger sizes having best results after a rain or thaw that has roiled the water a bit.

You might have to knock ice from your line guides and come up all thumbs as you try to get your tippet through the eye of a tiny hook. But if you'd like to resurrect that flyrod and have it bow once again under the weight of a fighting trout on the other end then you might want to consider one or more of the following FISH-FOR-FUN streams.

Centre County: Spring Creek, Fisherman's Paradise: More than a half-mile, running from the lower boundary of the hatchery to the upper boundary of the paradise. On this project, no fish may be killed or had in possession.

Cumberland County: Big Spring Creek: Nearly a mile



Most lakes throughout the state will have open water during the first part of the winter trout season. Here anglers try their luck from shore as well as boats on Scotts Run Lake located in Berks County French Creek State Park.

from the old Thomas Dam to the Strohm Dam; Letort Spring Run: A mile and a half from the bridge on Township Route 481 downstream to the Reading Railroad Bridge at the southern edge of Letort Spring Park; Yellow Breeches Creek: One mile stretch from Boiling Springs downstream to vicinity of Allenberry. Wading is permitted.

Elk County: West Branch Clarion River: A half-mile beginning at the intersection of U.S. Route 219 and L.R. Route 24007 upstream along Route 219 to the Texas Gulf Sulphur property line. Fishing permitted from east shore only.

Franklin County: Falling Spring Creek: Three-quarters of a mile from the bridge on L.R. 28003 in the village of Aqua, downstream about 300-yards below the bridge on Township Route 319, to the property line of Leonard Zeger and Valley Quarries.

Jefferson County: North Fork of Red Bank Creek: Two miles upstream from Route 322, in the borough of Brookville.

Lehigh County: Little Lehigh River: A half-mile near the town of Emmaus, running from Price's Bridge to a point south of the Hatchery Road Bridge.

McKean County: Marvin Creek: Almost a mile beginning 3 miles south of Smethport and extending downstream.

Mercer County: Neshannock Creek: One mile from the bridge at Route 258 upstream to the bridge at Route 58.

Potter County: Kettle Creek. About 1.7 miles, beginning 500 feet below the first bridge where Route 144 crosses Kettle Creek, northeast of Cross Fork, and stretching upstream.

Warren County: West Branch of Caldwell Creek: Two and a half-miles from the West Branch Bridge upstream to Three Bridge Run.

Lawrence County: Slippery Rock Creek: One-half mile from the Heinz Camp property line downstream to a point one-quarter mile downstream from the Armstrong Bridge on L.R. 37052.



WANTS "FUNDAMENTALS"

With this check for renewal of my subscription, listen to my plea. Old pros (?) like me are always looking for new things about fishing, boating, camping, stream improvement, etc. *But*, my "used" Anglers now go to my 11-year-old grandson. How about an article on fundamentals in most any of your many fields with each Angler for the benefit of 10- and 11-year-olds, as well as newly adopted older people.

I have never been a trout fisherman so I can use points in this direction. Richey gave me this thought. Some months ago when he was able to use the information given in an article about fishing for bluegills, we went to a farm pond and he was very successful. *Thanx Fer List'nin'!*

FREDERICK H. MOORBY
Finleyville

We'll give that some very serious consideration, Fred. Ed.

DESTROYED!

I enjoy your magazine, the Pennsylvania Angler, very much. But I enjoy fishing your state even more. That was until this year!

The one stream I fished almost every time was just about destroyed late last year and early this year, and not by the storm named Agnes.

This stream had a wonderful population of native trout from the little brooks now closed off from the main stream. It also had some really great hatches of cahills and stone flies until this year. It had many great holding places for the trout to pass away the hours or wait for food, until this year. In past years I could always get four or five nice natives or four or five nice stocked fish at almost any time of the year, not this year.

Gentlemen, the stream I write about is Pocono Creek, from Big Pocono State Park to Bartonsville, has been bulldozed down so not to leave a decent fishing

stream. This stream was pleasant to fish and very enjoyable to just watch the wildlife along the shores. I really hope there was a good reason for this and the stream will get back to normal in a couple of years. But I doubt both of either. Thank you.

R. M. ALBER
Fairfield, N.J.

Dear Mr. Alber:

Your letter to the *Angler* editor was referred to me as the subject of stream bulldozing comes under the work of Fisheries Environmental Services.

I discussed the section of Pocono Creek you mentioned with our Monroe County Waterways Patrolman, Walter Burkhardt.

Apparently, the bulldozing has been done by several groups as so-called flood control work and was mainly financed by Federal flood control funds. Much of it was done by Pocono Township. Unfortunately, such action ruins the stream for fishing and frequently is of little value or of only short-lived value for flood control.

This work was not approved by the Pennsylvania Fish Commission, nor shall we approve such stream desecration in the future. We are striving to get better control over such work and are making progress in that direction.

We certainly appreciate your interest in our streams as we must all work together to protect the aquatic environment or future generations will not be able to enjoy the fishing and aesthetic values of a beautiful, natural stream as you and I have been privileged to do.

Jack G. Miller, Chief
Fisheries Environmental Services

"SKINNY"—BUT "FINNY"!

Although the magazine is rather thin, it contains more good fishing material than most other outdoor magazines.

Many of the streams in York County are still producing trout well into July due to your new stocking formula. This was not the case in previous years. Many of my fishing friends are becoming reacquainted with summer trout fishing. *Hats off to those responsible.* Thanks again.

JOHN EYSTER
York

John, your comments on our new stocking formula will be greatly appreciated by the boys in our Fisheries Management Section! We'll thank you for them. Ed.

NORTHEASTERNER—

Let's have some articles on the Susquehanna River in our area, from Caxton Bridge in Harding to Towanda. The river is some place to fish. One day while drifting we hooked into a 35 pound carp. While fighting it, we assumed we had a muskie on. He gave a battle for about 15 minutes and when we finally netted him, we saw it was a carp. But that's the pleasure of fishing the Susquehanna River, you never know what you may have on — bass, walleye, muskie, northern, or carp. No matter what you hook into, you have a battle on your hands. Oh yes, the carp took a stonecat.

ARNOLD J. WEST
Swoyersville

Sorry, Arnold, but we don't seem to have an outdoor writer who knows where some of the best fishing in the world can be found! We're with you, that section is just the greatest—although the northerns come as a surprise to us. Ed.

BIRD MENACE

Some time ago, I believe you ran an article in Pennsylvania Angler, citing the danger which discarded monofilament line holds for fowl and wildlife. I can speak of this danger out of my own personal experience.

While fly fishing on the evening of August 23rd, I spotted a Kingfisher circling over a spot a ways downstream. I was dumbfounded as I observed it suddenly hanging motionless, suspended in flight, but hang suspended it did, by monofilament line wound on the tip of one wing and hanging from a tree branch some twenty feet high.

Wary of its long menacing beak, I pulled on the line to break it free. With Mr. Kingfisher in the water between my waders, I worked the line free of its wing, being sure to put the line securely in my pocket out of further harm's way. As I released the Kingfisher, it took a nip at my boot heel as though to say thanks and then rushed to get away. It couldn't fly, being exhausted and water-soaked. It made a pathetic sight, fluttering and bobbing down the left stream bank, but not nearly as pathetic as hanging by an unseen thread of indestructible line.

Downstream, it crossed over to the right bank where it tried to climb a large rock by a tree. After a few unsuccessful struggles, it found a more level spot where it got out and rested; perhaps its nest was nearby. Another Kingfisher passed overhead, shrieking a couple of times — perhaps its mate giving encouragement. As I fished on by, I kept my eye on it in the gathering dusk. My observation came to a sudden halt, being chased out of the stream by a sudden thunder storm.

Such a pretty bird, I hope the Kingfisher survived its ordeal. I know, as a result, I will make an extra effort to be sure I do not leave line streamside or in the fields where it can cause trouble.

PAUL G. LITTLEFIELD
Trumbull, Connecticut

ANTI-JOHNBOAT!

One thing bothers me a little. You seem to condone the use of johnboats. I think that they should stop making them. There is not enough freeboard (the distance from waterline and the gunwale) and too much flare or slant outward. You step on the port side and starboard smacks you on the afterside — they are worse than a canoe! The local waterways patrolman told me there are more upsets from this craft than any other.

That is some arrangement of Claude Millers', but I thought it was illegal to fish from a bridge! Yours till the line breaks.

JOHN STAMBERGER
(no address given)

"Condone" is not the best term, John. We simply recognize that they're here (and probably here to stay) and they do make an inexpensive "first boat," as columnist Gene Winters stated. We suspect that your reference is to his column, and if so, you will recall that Gene does advise using a good deal of caution when using a johnboat. Furthermore, he stated that johnboats are "suitable for use only in calm water."

We'll go along with what your local waterways patrolman told you about more upsets in johnboats than any other craft — for the same reason that there are probably more automobile accidents involving Fords and Chevies than Rolls Royces: there are simply an awful lot more of them on the highways. Same goes for canoes, but they've been around for centuries and I suspect they'll be here with folks enjoying themselves in them "til the cricks dry up"! Ed.



SUDDEN DROP—

This bass weighed 6 lb. at the lake when checked on two different scales. Then, three hours later, it dropped to 5 lb. 10 oz. I didn't think this possible, but it happened! What do you think? Is this normal? Or were the two "de-liars" — liars? Happy Fishing.

LEE S. SHAFFER

What do we think? We're stumped! We think we've heard every fish story imaginable — until the next batch of mail comes in! I don't suppose you can trust a "de-liar" any more than you can trust a liar, Lee, right? Ed.

ONE FOR THE BOOK!

While fishing in a farm pond in Wolf Creek Township, Mercer County, Pennsylvania, on Labor Day, using the River Runt lure I cast in and a fish took the lure. Imagine my surprise when I reeled in and found I had two largemouth bass on the same lure. One 17" and the other 15".

VERNARD SHUMAKER
Jackson Center

We could reword that and say that you caught "thirty-two inches of bass on one cast," but we won't — we don't think too many of our readers are even going to believe your version! But then, that's fishing, isn't it? Ed.

ONE FAULT—

One fault I find: when you write about an area, give us a better idea of the location so we can travel to these areas. Thank you.

RALPH R. PAULINE
Folcroft

If that's the only fault you can find, Ralph, we must be doing something right! Seriously, we'll remember your suggestion and try to give directions more clearly. Ed.

BOATER'S TIP

Did you break your plastic handle from your outboard motor? If anyone should have an outboard motor with plastic knobs or handles on their transom bolts and they should break off, a universal faucet handle with a set screw may substitute. Mine broke and this worked for me.

JAMES ENSLIN
Scranton

HE WANTS A PIECE OF THE ACTION!

Just received my Angler (October) and naturally the first thing I read is Mr. Abele's report or editorial and Trout Unlimited pops up. I've been trying to join up, or to become a member of the club since I retired ('71), as I have read a lot about the good work that is being done by them.

Four of us Wells boys have a camp on the Driftwood Branch of the Sinnema-honing (Sterling Run) and I have cards to all of the local Hunting and Fishing Clubs from Galeton, Austin and Emporium. But I don't have a card to the big one. If you will, can you put me in touch with a chapter near there. I am getting too old to work on the streams, so maybe my few dollars might take up the slack.

HARRY W. WELLS
1168 Laird St.,
Akron, Ohio 44305

Attention TU: Go get him! Harry, we've got a feeling you're going to hear from more TU Chapters than you can shake a buck at! We've got to congratulate you for your attitude, though. Too many sportsmen possess either muscle or money — or both — and are unwilling to share either. Ed.



Shown above is Carl Beaumont, of Erie, with the largest Chinook taken as of mid-October. That beauty was 37-5/8 inches long, and it weighed a whopping 16 lbs. 9 oz. How's that for putting meat on the table? Ed.

Taking A Closer Look

by Tom Fegely

*"On the white sand of the bottom
Lay the monster, Mishe-Nama,
Lay the sturgeon, King of Fishes."*

Hiawatha's Fishing

Of all the new models of fish created by nature during the past hundred million years, none has been as stubborn in resisting change as the sturgeon. In appearance, today's sturgeon differs little from its prehistoric counterpart.

Seven species of sturgeons still swim in North American waters — three of these can be found in some lakes and river systems open to Pennsylvania anglers.

The largest and possibly the most common of the three is the ATLANTIC STURGEON (*Acipenser oxyrinchus*), the anadromous species found in the Delaware River Basin.

Early Pennsylvania records make frequent mention of the Atlantic sturgeon. William Penn was so impressed by its size and numbers that he frequently made reference to the sturgeon in his letters and notes. A century after Penn's death in 1718, thousands of them were still being sighted in the lower Delaware.

It wasn't until about 1850, however, that the sturgeon began to receive attention as a food fish — even though at that time sturgeon steaks sold for only a few cents a pound and an entire fish could be bought for a quarter. The roe had little use except as bait and hog food.

Twenty years later, however, commercial fishermen began to reap a profit from the Atlantic sturgeon and took them in great numbers, smoking the meat and making caviar from the roe.

As the fish's popularity increased, its numbers decreased. The total catch in the Delaware River in 1890 amounted to a little over five million pounds and declined to 2½ million pounds only seven years later. By the turn

of the century commercial sturgeon netting was only a sporadic enterprise.

All three species of Pennsylvania sturgeons are similar in appearance. The Atlantic sturgeon is the largest, reaching a maximum length of ten feet and a weight of 500 pounds, although most are much smaller. All three require many years to reach sexual maturity and may live from 50 to 150 years.

The SHORTNOSE STURGEON (*Acipenser brevirostrum*) is also an anadromous fish found in the Delaware River. Its spawning habits are thought to be similar to that of the Atlantic sturgeon. The shortnose, however, is much smaller, rarely growing to more than three feet. It derives its name from a short, broad snout which distinguishes it from its larger and better known cousin.

The LAKE STURGEON (*Acipenser fulvescens*) is strictly a freshwater fish, capable of growing to eight feet and 300 pounds. It is a resident of Lake Erie and the other Great Lakes where past history indicates that it too suffered some of the same abuses as the Atlantic sturgeon.

Prior to 1870, the lake sturgeon had little use except possibly as fertilizer. Commercial fishermen considered them pests because the rugged sturgeons damaged their nets. Consequently they were thrown ashore and burned (or left to rot) whenever one was caught.

By 1880 though, Great Lakes sturgeon industries were common. The primitive creature's flesh was smoked, its air bladder used to make isinglass (a gelatin-type substance used in preparing jellies and glues), its skin fashioned into leather and the eggs made into caviar. Even today the roe of the lake sturgeon is sold as caviar by a few scattered Canadian fisheries.

The main feature of all sturgeons is the five lengthwise rows of bony humps extending along the back and sides. The toothless mouth is situated beneath the head, just behind four conspicuous barbels which aid in finding food. A shark-like (heterocercal) tail completes the sturgeon's primitive appearance.

As the location of the mouth indicates, the sturgeon is a bottom feeder. When swimming about, the fleshy, sensitive barbels probe the lake or river floor for crustaceans, mollusks or other edible morsels. When one is discovered, the protrusile mouth opens up to literally "suck in" the prey.

At spawning time, in spring or summer, sturgeon quit feeding. The Atlantic and shortnose migrate upriver and deposit their eggs at random just above tidewater. The female is often accompanied by one or more males. In about a week, the adhesive eggs hatch into one-half inch larvae which live and grow in the vicinity for one to three years before returning to the sea.

The lake sturgeon spawns in swift-flowing tributaries or over gravel beds in the shallows. Evidence indicates that the female lake sturgeon probably spawns only once every five or six years. In that time a 200 pounder may produce as many as four million eggs . . . a real prize to a commercial netter seeking roe for caviar.

It seems somewhat ironic that the sturgeon survived eons of changes only to suffer from the overfishing, pollution and dam building activities of man. The future of Hiawatha's "King of Fishes" is indeed bleak if the past century's abuse is a barometer of what is to come.



The shortnose sturgeon, found in the Delaware River, is much smaller than the lake or Atlantic sturgeons.

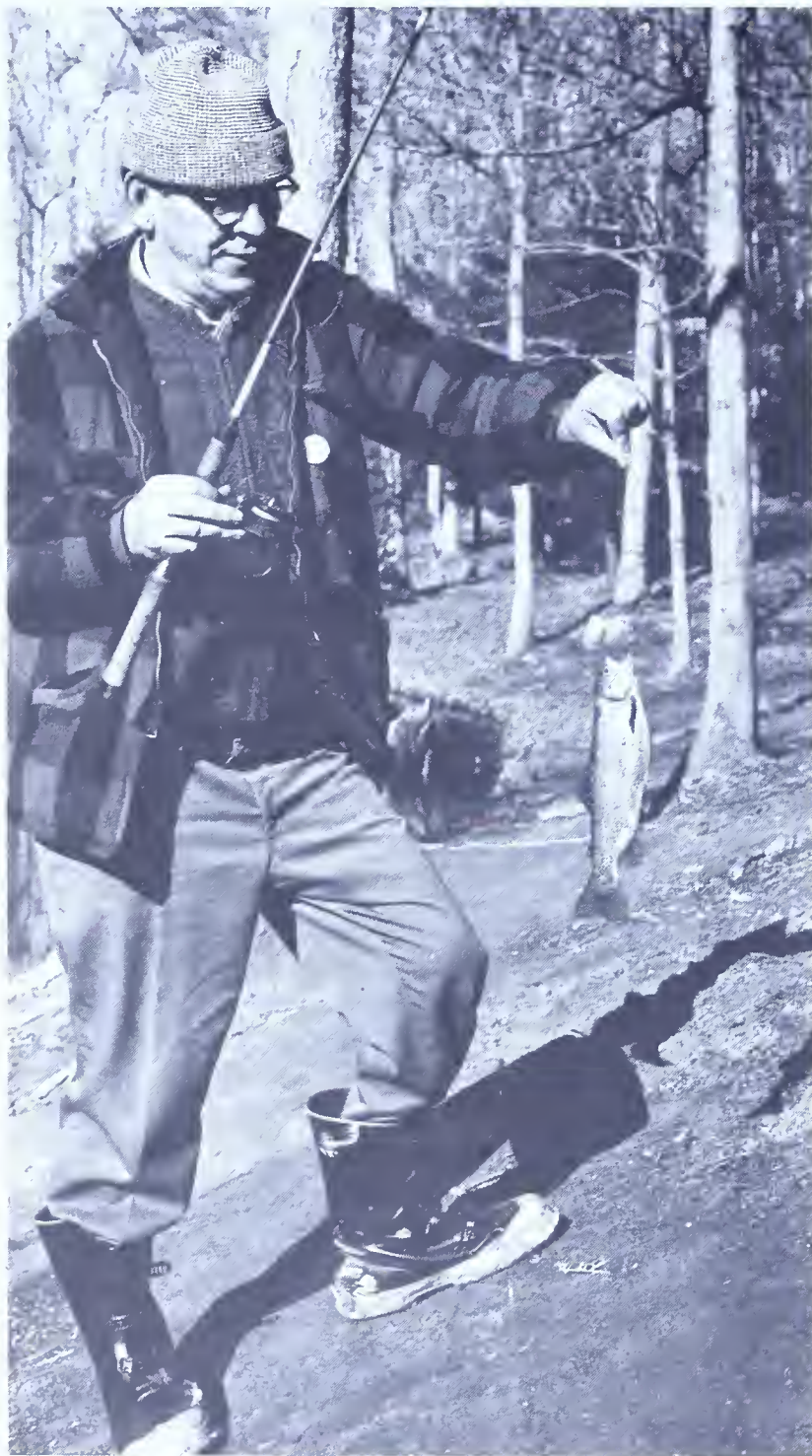


Sturgeons are bottom feeders. And, like catfish, they use their sensitive barbels to search out food. Note the "extendable" fleshy mouth located on the underside of the head.

The sturgeon is covered with heavy skin which at one time was utilized in the manufacture of leather. The future of the sturgeon is indeed bleak if the abuses of the past were to continue.



Trout fishing is far from a "springtime only" affair. This year, give it a try.



Koon Lake

&

Winter Trout

by Fredric Doyle

photos by the author

Koon Lake, to stretch the tangled web of a simile to a twanging thread, is reminiscent of a girl who once inhabited our neighborhood. This little girl, a green-eyed monster with freckles, ponytails, bare feet, and scabby knees was always barging in on our games; the sand lot; the "Cowboys and Indians"; the "Cops and Robbers". To escape her, we went deep into the surrounding wilderness. And it was not until high school days at a dance one night that this little girl floated across the floor, all perfumed, fluffy and pink, and turned the world upsidedown.

Koon Lake is in my neighborhood — about an hour away. I have passed there many times on my way to distant places where the trout were large and voracious. Many times I had to stop at a fish market on my way home; Koon Lake held no attraction.

That is until Jake Mincek, my neighbor, came home from Koon Lake the other day with a fifteen-inch rainbow. A few days later Jake and his brother caught twelve rainbows all twelve- to sixteen-inches long at the same place; releasing, of course, all but six.

While this did not exactly turn my world upsidedown, I was impressed, and agreed to go along with Jake to try my luck at winter trout at Koon Lake.

On the appointed morning, a heavy fog blurred our way to the lake. We stopped at a small cove near a rest area which Jake had picked as a hot spot. Baiting our hooks, we waited for action. The fog was still with us; a cold penetrating mist. The surface of the lake was like a dull mirror which reflected the naked white oaks that lined the shore.



Look at that bare shoreline! There's always room for one more at most Pennsylvania winter trout lakes.

Other anglers came. "What are you using for bait?"

Answers varied: cheese, minnows, salmon eggs, worms, spinners and other hardware.

Voices drifted across the lake. "They were biting yesterday!"

"Bill caught a fourteen-inch brook trout right here where I'm standing!"

"Here's where I caught that three-pounder last year!"

Finally, Jake's line began to move out. He lifted his rod and set the hook into a twelve-inch rainbow. It was the only fish caught in this area.

By early afternoon the fog lifted. We basked in the bright sunshine, eating our lunch and drinking our coffee as we watched the salamanders bob to the surface then wiggle back down. We had no more strikes.

Koon Lake and Lake Gordon are located just north of the Mason-Dixon in Bedford County, Pennsylvania. These lakes are the source of city water for Cumberland, Maryland and are locally referred to as The Cumberland Dam. Lake Gordon is noted for bass, pike and muskellunge while Koon Lake is the trout lake. With an area exceeding ten acres it is therefore open for winter trout fishing.

However there are some restrictions. No boats, no ice fishing, and no overnight camping. Evitts Creek is the main source of water supply for these lakes. This stream is well stocked with trout by both Pennsylvania and Maryland. Pennsylvania trout stocking is restricted to

Koon Lake and Evitts Creek above the lake. Maryland stocks the stream with trout below the dams. You need both Pennsylvania and Maryland fishing licenses to fish the length of the stream. Open season for Evitts Creek is the same as for all inland trout streams.

According to information gathered from local residents, Koon Lake has a shoreline of about ten miles with a fairly good road paralleling a well-beaten path around the lake. Anglers from my area favor "The Pines" as the best place for winter trout. There are several deep coves fringed with pine trees not far from where Evitts Creek empties into the dam and good parking places are available at these points.

Koon Lake is a good example of city reservoir water management and sportsmen who have cooperated to furnish a fine recreational area. In spite of protests of water pollution, litter, accident liability and law enforcement problems, the grounds are open to the public. With the continued cooperation of the public in general, and the anglers in particular, it will remain so.

Koon Lake can be reached by traveling south from Bedford, Pennsylvania on Route 220 to the village of Centerville, a distance of about twenty miles. At the gas station and restaurant there, turn left. A rural road follows the Evitts Creek valley to the dam, a distance of about five miles.

And now, with bicycles coming back in style, many of us will be taking a closer look at our own backyards.

Although they have a two-fold purpose,
not all fishermen know how to use them!

The case for SINGLE-ACTION REELS

by Jim Bashline

photos by Sylvia Bashline

There was a time in this country when the average trout fisherman who chose to angle with the fly rod cared less about his reel than he did about the color of his socks. Generations of fly casters were told by the sages who write about such things that, "*A reel was merely a place to store the line when it was not being cast*". These old time typewriter punchers also went on to say that a trout should be played via the "let-out-line and take-in-line approach", all done with the fingers. For very small or average size trout on four pound test tippets this worked out reasonably well but even then, great episodes of line tangling used to occur.

Today's fishing writers, and today's anglers for that matter, are more knowledgeable. They know that a good, smooth-working, single-action reel makes fishing more pleasurable. In the case of the ultralight leaders and smaller flies that are in heavy use today (and effectively so), without a slick, bump-free drag, many fish — even rather small fish — would never be brought to the net. It is far better to play all fish directly from the reel than it is to strip in the line in loose coils and step on it several times. This is not healthy for the line's finish and frequently results in a knotted loop at the stripping guide which almost always leads to a broken tippet.

A smooth-working drag protects the light tippets if set up mildly, and besides, listening to the "click" as a fish runs is a pleasant sound even if the trout is only a foot long! I find the clicking sound of a well-made reel a comforting sensation and without that noise writers would be a terribly frustrated lot. It's something to speak of eloquently. (But I am getting carried away with fly-specks).

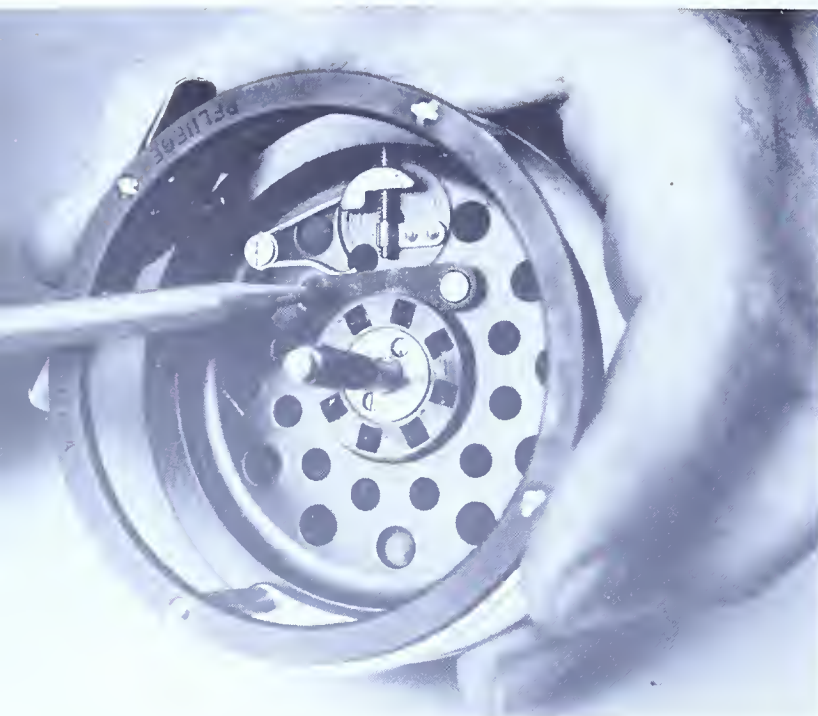
By far, the most popular reel in the world for the fly angler is the single-action type. What this means, literally, is that the reel revolves one time for each complete turn of the reel handle. As opposed to this basic type there are multiplying reels that make two or three complete revolutions per turn of the reel handle. Cortland, Orvis, Hardy and Martin offer such reels. They have proved their worth in situations where large quantities of line have to be picked up in a hurry. In Pennsylvania waters, the only fish that really require their use are the long-running and hard-fighting American Shad, and the newly introduced Coho and Chinook Salmon. Atlantic Salmon anglers made these multiplying reels popular in some areas and it's for this fish that most increased-ratio reels are for.

The other sort of reel that most of us are familiar with is the automatic. This spring loaded, "line container" is really more popular with bait fishermen than it is with the fly casters. Not that the automatic can't be used for fly fishing; it certainly is — and by thousands of Pennsylvania anglers. With the lighter outfits in use today, automatics are simply too heavy to balance up well. Most of them don't hold much more than the fly line itself so their use is out for fish that may run out the fly line. Admittedly, most of us don't run into many trout or bass that will do that, but we like to believe *the possibility is always there*. For the small brook fisherman, who fishes with grasshoppers and worms and changes lengths of line frequently, the automatic works fine. It isn't a bad choice for the bass bugger who doesn't want loose line coiled in the boat or may have to paddle with one hand and hold the rod in the other. He can actually hold the rod, and

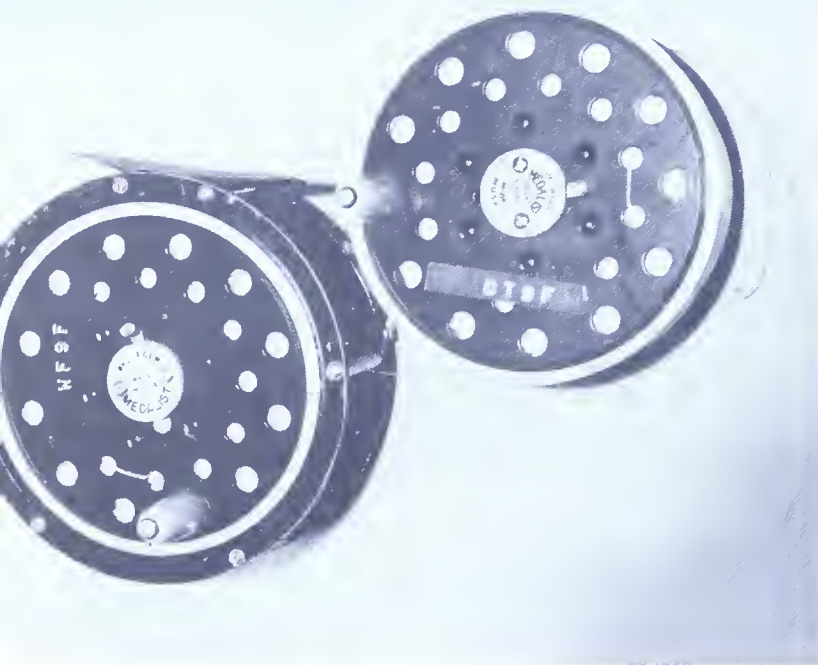


Using a fly rod reel to "play" a fish, much like a spinning or bait casting reel, is almost completely ignored by the average angler. After a fish is hooked, left, grasp the line with a finger or two and hold it snugly against the cork grip until you can get the slack line back on the reel. Then, after reeling up the slack, above, allow the fish to surge against the reel's drag until he begins to tire. It's a far safer way to play a large fish than using the "hand-over-hand" method of retrieving line and allowing it to coil up around your boot tops. Most copied of all reels, the British Hardy is shown below in three sizes.





Pencil point indicates the hard fiber drag of the Medalist reel, above left, that is released or tightened by means of an exterior screw. The inner disc, with eight holes, is the reversible click, shown arranged for left-hand operation. To make it click the opposite way, remove two screws and turn upside down.



Another reversible, above, Orvis C.F.O. reel shown with the two clicks in the left-hand position. To convert it to right-hand reeling, simply pick out, turn upside down and replace. This reel has no frame, it "floats" on a single upright axle.

One reel can handle several different lines through the use of extra spools, left, and it's much cheaper than buying a complete set of reels.

reel in at the same time, with the same hand; a tricky maneuver, but it can be done. Automatics are also ideally suited for handicapped persons who must fish with only one hand. I know a very fine, one-armed fisherman who uses an automatic and strips line out with his lips. Incidentally, watching him tie a fly onto a 5X leader with one hand and his teeth is a humiliating experience when trout are rising and *I'm having difficulty doing the same job with two hands!*

The heart of a fly reel is the click. This is what creates the "drag" on the line as it is being payed out and hopefully prevents the reel from overrunning and causing a tangle. Since we can't thumb a fly reel as we can a bait casting model, the drag must be strong enough to prevent overrunning by itself. If you've ever handled a bait casting reel you know what is meant by a "birdsnest". The same thing can happen with a fly reel if the click is not strong enough. The more inexpensive fly reels have a "one tension" click that is nonadjustable. For most

small-to-medium fish this will work out reasonably well, but when the occasional hard-running fish is hooked on such an outfit, the angler must assist in regulating the tension by pressing the line against the rod handle with the required amount of force. A delicate hand is needed to do this with a big fish on a light leader. A much more positive way to handle the problem is with a fly reel that features an adjustable drag. Most reels offer a screw-type arrangement that is threaded through the edge of the reel frame that increases or decreases tension on the click spring. This forces the triangular-shaped click into the ratchet grooves that are cut into an interior flange. Simply, this adjustment makes the reel turn with more or less friction. When a fish is initially hooked, he'll be fighting faster and stronger. The longest runs will be made then and less drag is desired. As the fight progresses, it may be necessary to tighten up on the drag as the fish begins to tire. On small fish, it is not necessary to change the drag while fighting it.



The star drag on Shakespeare's 6D reel, above, is continuously adjustable. It bears on six metal and synthetic discs which apply pressure to the reel hub. For big, hard fighting fish, like shad, coho and chinook salmon, it is popular for saltwater use as well.



A reel that is unique in that, in addition to an interior click and drag, it has an outer flange which extends over the reel frame, allowing additional "braking" for a hard fighting fish, is Scientific Angler's System 8 reel. The drag can be set very light and drag pressure can be applied with the fingers, above right, for very subtle control.

Although much the same in outward appearance, the reel at right is not a single-action reel but a "multiplying" reel. One turn of the crank revolves the spool 3 times.



As a general rule, the fish that you intend to keep should be fought to a standstill before being netted, hand-landed or slid onto the bank. The fish that you expect to return should be fought quickly and released before they become completely pooped out. Their recovery chances are better and who cares if you lose an occasional fish if you planned to release it anyway?

There are three basic kinds of drag mechanisms in fly reels. One involves the triangular-shaped metal or synthetic wedge that engages a ratchet gear. This is the system found in most British reels such as the Hardy, J.W. Young, and others. It is also found in the reels that are made by the British makers for a number of American concerns such as Scientific Anglers and Orvis. A number of Japanese-made reels that are marketed by American tackle companies also utilize this system and in many cases they are doing a surprisingly good job of it. While in my opinion the British still produce the best ratchet type fly reel, the imports from the other side of

the world are good serviceable reels and of course, cost about one-half to one-third as much as those made in "gin-and-tonic-land."

Another highly copied drag arrangement is that made famous by the old American maker, Pflueger. This is the second basic type of fly reel that features a "shoe" drag that works very much like a brake shoe on an automobile wheel. A hard fiber or structural nylon shoe bears down on the slotted click device and an exterior screw reduces or increases tension. This is a most reliable arrangement that has been proven in tough fishing conditions all over the world. The Pflueger Medalist series of reels have been around a long time and have undergone few changes in twenty years. This certainly speaks well for the design.

The third type of drag arrangement that is becoming more popular, especially with large fly reels made for salt water game fish that really put some strain on tackle, is the combination disc drag. Shakespeare's 6D drag is a good example. Working somewhat like the newer disc

brakes on automobiles, this combination of metal and nylon rings is regulated by a drag screw on the axle of the reel which increases or decreases tension. Many of these newer reels also feature a cutout lever that allows the reel to revolve with the drag in force but does not permit the reel handle to revolve . . . except when line is being retrieved. This can save a banged-up knuckle or two when a big tarpon or saltwater monster decides to head for the Azores. Admittedly this doesn't happen too often in Pennsylvania waters but we can all dream about the day when we may get the chance at one of these giants. (I'd better insert here that, with those Chinook Salmon getting closer to the thirty pound mark every day up Erie way, and Keystone muskies already exceeding that weight, a saltwater-type reel for Pennsylvania use is no longer a matter to totally dismiss).

In general, when selecting a single-action reel, you get what you pay for. Most of old-line American and foreign establishments offer well-made products in their top-of-the-line models. Any single-action reel costing fifteen dollars and up should give ten years of trouble-free service if it's kept clean and well lubricated. But, there are reels which cost less that are excellent values as well as reels costing much more that are a bit questionable.

Here's what to look for:

1. Good fit of spool to frame. On most single action reels there is a spring-loaded ear or button located near the hub of the reel that, when depressed, will allow the spool to be removed. Try it out. Make sure it works easily and when replaced there should be no binding and no gap large enough to allow a loop of line to become pinched. Many good fish have been lost because of a sloppy fit at this point.

2. Does the click sound constant? This may sound foolish but turn the reel handle with the click engaged and listen to the steadiness of the "click, click, click, click." If it sounds like, "click, *rasp*, click, *rasp*" — then the reel was either assembled improperly or the parts aren't meshing correctly. It may smooth out in time, but a better move is to pick up a different reel.

3. Try the drag for smoothness. To do this carry a ten-foot section of line in your pocket and wind it on the reel in question. Reel it up and set the drag up fairly tight. Then, pull smoothly on the line and you'll be able to tell if the line is paying out evenly. There should be no fits or jumps and the reel should make no unusual noises. The tackle salesman may look at you a bit oddly, but it's your money and you expect to use the reel in question for a long time.

4. Are there any rough spots that will damage the finish of the line as it pays off the reel? Some reels have stainless steel or other hard metal reinforcing bars on the frame that prevent the constant stripping of line from wearing a groove in the metal. (Note: Steel frames are more rugged in this respect but do add weight. Aluminum is much lighter but will groove more easily: the same is true of most alloys.)

5. Is the handle large enough to grasp with the fingers or is it too small to be convenient? An oversize handle is an advantage.

6. Can the reel be converted to left-hand retrieve? With many inexpensive reels this is no problem since the click

and drag work equally in either direction. With other models that have a one-way click, the click and drag adjustment must be reversed. This is important to me, since I fish right-handed but reel in with my left hand; I don't want to change hands for reeling in. As more and more fishermen are switching to this method, this is an important feature to consider. The better British reels are easily reversible and always come with instructions for doing so; so do an increasing number of American reels. With many reels, it's simply a matter of turning the triangular click upside down and spooling the line on backwards. If the reel is equipped with a line guard, this can easily be moved to the other side of the frame.

7. Does the reel have the line capacity that you need for the fishing that you will be doing with that particular outfit? This last feature requires more than a little discussion.

In the case of shad or salmon, where a more powerful rod and longer casts will be the rule, it's a good idea to buy a reel that will handle the full 90 feet of fly line (that is the standard length for most double tapers and forward taper lines) plus at least two hundred feet of 18-pound test backing line. The backing or surplus line can be monofilament or braided dacron or nylon. I prefer the braided line since it is not so likely to acquire a permanent "kink" while stored on the spool. On reels that are not filled up by the fly line, a bit of backing — say 25 yards — is still a good idea because it fills up the spool and makes reeling in faster.

On very light outfits for small streams where a 50-foot cast is the longest that will ever be made, why not cut the line off at that point? In fact, for most Pennsylvania trout fishing, it wouldn't hurt to cut a double taper line exactly in two and splice enough backing on one piece of it to fill up the reel . . . This will still allow enough line for a 45-foot cast and by shooting some of the backing you can make a 60-foot cast with little difficulty. Makes two fly lines out of one. I've done this with many small stream outfits and never felt handicapped in any way.

When fly fishing or bait fishing with the fly rod and single-action reel, try to acquire the habit of taking up the slack line *as quickly as possible* and play all fish from the reel. Allow the fish to pull against the drag when they are active and reel in line when they are giving it up. Watch any fly fisherman who has landed a larger number of big trout or bass. Also, keep your eye on the well-traveled fisherman who has had a chance to fish for bigger game. He tries to get that slack line on the reel as soon as possible and fights *all* fish, even ten-inchers, directly from the reel. He's learned — the hard way — that a sudden surge on the fish's part can quickly break leaders or cause bad tangles if the line is allowed to droop haphazardly around the boot tops. Then, when the moment of truth comes for netting or hand-landing, the fisherman is not hampered by loose line laying on top of or underneath the leader. When you sink a hook into that two foot brown trout, or pot-bellied smallmouth, that usually comes along about once in two or three seasons, you'll have a distinct advantage. A smooth-working single-action reel puts the angler in closer contact with each surge the big fellow makes and increases the odds of putting a trophy on the wall.

PFC Retirees Honored —

At the Sixth Annual Retirement Program, held September 27, 1974 at the State College Elks Country Club, eleven retiring employees were honored for an aggregate total of 327 years of service to both the Pennsylvania Fish Commission and Pennsylvania anglers.

A brief biographical sketch of each, taking them in alphabetical order, reveals a common devotion to family, community, and employer alike.

Waterways Patrolman Kenneth Ale joined the Fish Commission in 1938 and has served as the Commission's law enforcement representative in Potter County since that time. In the course of his duties, Ken had the singular (and somewhat surprising) distinction of arresting the wife of Elliot Ness, the famous G-Man of Al Capone's days, *for fishing without a license*. Ken plans to continue working with area conservationists but will have more time for hunting, fishing, and trapping.

Kenneth W. Baird began his career with the Commission at the Bellefonte Hatchery in 1957 and was associated with that station throughout his service. Ken has included a good bit of hunting and fishing in his retirement activities. The father of five children, Ken has always been a motorcycle enthusiast and plans more riding than ever before!

Russell E. Bender started his career way back in 1929 and was a member of the construction crew which built the Reynoldsdale Hatchery. He retired after 44 years of service and plans to continue to be active in sportsmen's clubs and get in a little more hunting, fishing, and traveling in the years ahead.

James L. Biddle is another four decade man, completing 40 years of service last June. His first employment was in 1934 at the Bellefonte Hatchery and eventually he helped with the construction of the Spring Creek Hatchery, Fisherman's Paradise, and later, the Benner Spring Fish Research Station. Since 1948 he has served as foreman of the Spring Creek Project. Retirement will allow Jim to become more involved in community affairs, an activity that has always been his favorite.

Arthur D. Bradford served in a number of capacities during his many years of service. Joining the Commission as a fish pathologist in 1942, Art eventually was named Chief of the Di-

vision of Fisheries, the post he held at retirement. One of the nation's leading fish pathologists, Art plans to join his retiring colleagues in more hunting and fishing than ever before.

J. Owen Clark began his career in 1935 as a fish truck driver out of the Reynoldsdale Hatchery and currently holds the Fish Commission record for the most miles traveled during trout stocking activities (*just think how many fishermen he's made happy!*). Jim is going to mix hunting and fishing with some gardening in the years ahead.

Waterways Patrolman Anthony Discavage was an Acting Game Protector before joining the Fish Commission's Law Enforcement Division in 1951. Tony's friends know him as the greatest storyteller on earth — bar none, but Tony has a serious side. Active in many fraternal and civic organizations, he was named "Conservationist of the Year" in 1966 by the Armstrong County Conservation League.

Waterways Patrolman Bert Euliano, another storyteller whose congeniality never seemed to diminish his effectiveness in the Law Enforcement Division, has had a long and colorful career dating since 1950 — including a period of distinguished service in enforcing commercial fishing regulations on Lake Erie. One story Bert tells, proudly, is that his three children have made him a grandfather eleven times!

Luke Fisher joined the Fish Commission as a plumbing supervisor in 1969. Since that time he has been the inspector in charge of construction on Minsi Lake, Rose Valley Lake, and the renovation projects at both the Oswayo and Reynoldsdale Hatcheries. Luke plans to relax a bit, but won't hesitate to "follow his calling" doing local consulting work.

Harper P. Main, Jr. began his state service first with the former Department of Forests & Waters in 1939. In 1948 he began his Fish Commission career as a "Fish Warden" assigned to Franklin and Adams Counties. He later transferred to the Huntsdale Hatchery, serving there until retirement. Catching up with work around home and managing his 100 acres will occupy most of his retirement years.

Roy Smith, like Russell Bender, began his long tenure at Reynoldsdale as a member of the crew which built the hatchery in 1929. Returning to the hatchery after service in the Army during World War II, Roy began feeding fish and continued to do so right up until his retirement. Roy plans to do some farming, but not enough to interfere with some serious hunting and fishing.

Below, left to right, front row: Waterways Patrolman and Mrs. Bert Euliano, Mr. and Mrs. James Biddle. Middle row: Waterways Patrolman and Mrs. Anthony Discavage, Mrs. Luke Fisher, Mr. and Mrs. Arthur Bradford. Back row: Waterways Patrolman Kenneth Ale, Roy Smith, Luke Fisher, and Roy Smith's son John. Unable to attend: Kenneth Baird, Russell Bender, J. Owen Clark, and Harper P. Main, Jr.



MAKING SPOONS

BY NICK SISLEY

Spoons are synonymous with wobble, because that's what they do. Though usually made of brass or other metal, spoons are sometimes fashioned from bone or seashell. Their basic blade design is a concave underside and a convex topside, varying from roundish to elongated. As you work a spoon through the water, it wobbles from side to side but does not (*or should not*) turn over.

Spoons are one of our most tried and true lures, and most anglers use them less than they should. Few sportsmen realize how quickly, easily, and inexpensive it is to *make their own spoons*. The last two spoons I bought off the sporting goods shelf cost almost two greenbacks each! I mean that literally, they were the *last* spoons I bought. I've taken to making up my own and have found I've been able to reduce the price to a mere pittance compared to what spoons are going for in the shops.

All the innovative angler has to do to realize how easy it is to make a spoon is look at one. There are exceptions, but for the most part, all there is to them is the spoon body, a split ring, and a treble hook.

Spoon blades themselves come in a wide variety of shapes, sizes and forms, but you won't normally find blades without hooks in sporting goods stores. It's usually a catalog house that carries these types of fishing wares: Herter's, Hille's, Reed's, Worth Company, All Lure Tackle Company — the list goes on. In the catalogs you will find the cost of a twenty-five spoon blade assortment will be somewhere in the area of five or six bucks. Some drop from the "two-dollar-apiece" lures I spoke of earlier!

Treble hooks are normally priced in the range of two dozen for a dollar, while split rings can be obtained for about one dollar per gross.

Ah! I see your eyes are widening. For less than ten smackers you can have twenty-five spoons. That's less than 40 cents apiece, instead of two bucks apiece. And I'd wager that you could make up twenty-five spoons while you sit in front of the TV tube and catch all of the important aspects of a one-hour television program — and still make twenty-five spoons before the show is over. To make up each spoon, merely separate your split ring, fit it through the hole in the back end of the spoon, work the ring through circularly until it's on completely. Next separate the split ring again, insert the eye of a treble hook and work the split ring around until it snaps shut. Simple as that.

Only a few seconds of time invested, and your spoon is ready for casting.

After making up a few spoons, you are going to find that opening up split rings is extremely hard on thumb and fingernails. Though small knife blades can be used to open split rings prior to starting to thread on the spoon or hook eye, this is not a recommended practice. I suggest you invest another buck for a pair of "split ring pliers." This unique little tool opens up split rings slick as the proverbial whistle, with no wear and tear or tattered nails.

Spoons will take all Pennsylvania sport fish. Naturally you should select the smaller sizes like 1/16, 1/8, and 3/16 ounces for panfish and trout, and move up the line in spoon size as you seek larger species.

Spoons are heavy for their size and sink quickly. This gets them down to fish eye level in short order because most fish in flowing water are on the bottom, while our sport fish in lakes and reservoirs continually seek depths where water temperature and oxygen content is to their liking — and that's often down below the ten foot level. Heavy spoons get to 'em!

I've enjoyed great early season walleye fishing using a heavy spoon that got down to the bottom of a lake bay (about eight feet) in short order. Though a steady retrieve of a spoon often works well on spring walleyes, I usually prefer to add action to the lure by popping the rod tip, similar to the way you work a jig. The effect is that the spoon settles to the bottom, then stirs up the mud or sand each time you raise the rod tip and lift the lure a foot or so, wobbling enticingly as it moves.

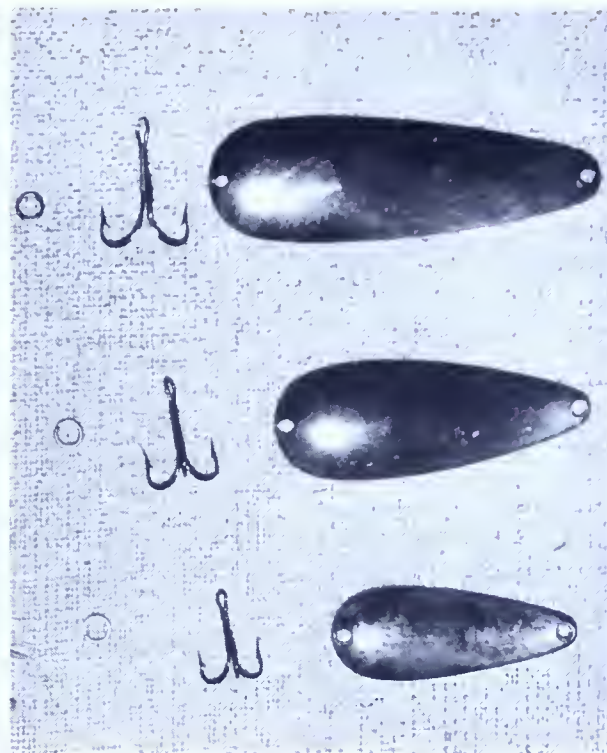
Spoons are very popular as trolled lures. Most designs are intended for slow trolling speeds, because when trolled fast, they'll spin instead of wobble — producing an angler's nightmare — a horribly twisted line! To avoid line spin while trolling, it is suggested that you use a keel type sinker and *always* use a top quality barrel snap swivel between your line and the spoon itself.

I wonder how many *Angler* readers have ever seen a spoon in the water with a pork rind frog attached to the hook. Slowly retrieve and flutter this lure back to the boat, and you'll be amazed. Spoon action looks good, but a pork frog adds so much more that you'll wonder why three or four fish haven't hit this unique package on that first cast — that is, if you can get it back to the boat without a fish doing so!

And pork rinds aren't the only additions that can improve the fish taking ability of a spoon. Try adding a plastic worm and flutter this new combination across the depths, in close to snags, weed beds, etc. Another good addition is a piece of a live nightcrawler, a small minnow, or a strip of fish belly. Be innovative. Anything you can add to a top lure (and spoons have already convinced experienced anglers that they are such) to add more enticing action, odor, etc., etc., will improve its fish-taking capabilities. Don't forget rubber skirts, too — slip them over the hook shank — they're available in a myriad of colors.

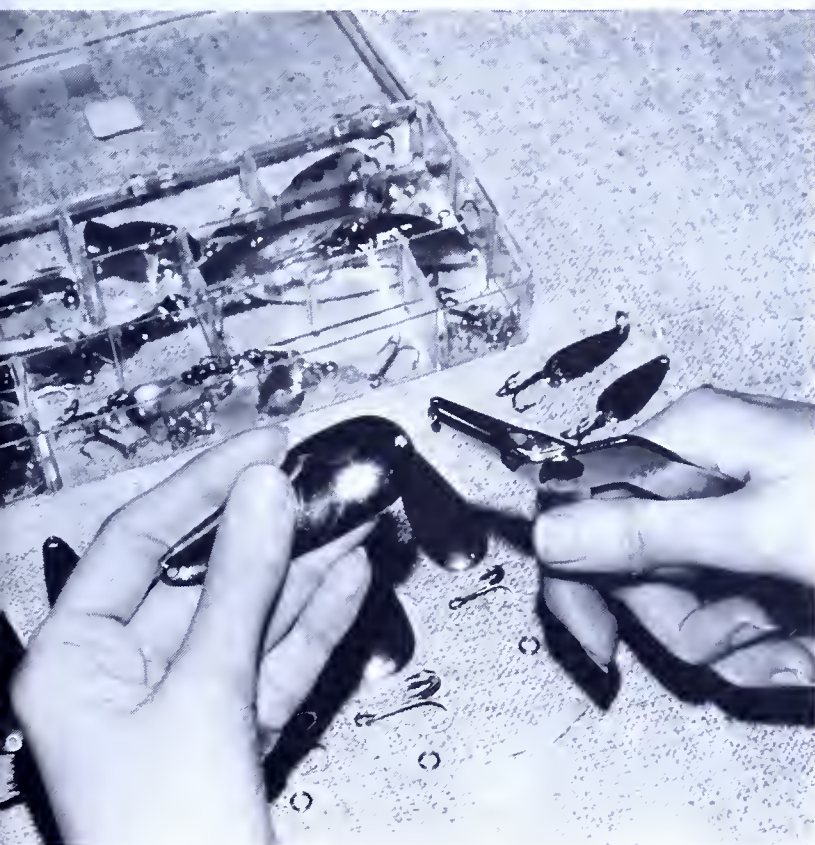
The next time you are able to get on the water for a day of fishing relaxation, put more of the spoons in your tackle box to task. They are one of the fish-takingest lures ever developed, but with the advent of countless other lures and lure types, many anglers have relegated spoons to the bottom of their tackle box. If that's where your spoons are lying, I suggest you bring them to the top, *now*! And augment the supply you already have with some of the handmade variety. The spoon blades, split rings and treble hooks are inexpensive, and there is not another lure type that can be "handcrafted" so easily and so quickly.

Finally, there's added satisfaction in taking fish on baits you've made yourself — akin to the fly fisherman who ties his own flies or the deer hunter who bags his buck with carefully worked up reloads.



This assortment of spoons, above left, will soon join the author's lure collection. Note the "grass skirts" which can add enticing action to a spoon. Dependable and effective lure though it is, the spoon is remarkably simple to construct. Basic components are shown above, center: the blade, treble hook (double hooks make them less likely to snag bottom), and a split ring to join the hook and blade. Although split rings can be opened by fingernails, knife blades, or a number of other improvised tools, a pair of split ring pliers makes the job considerably simpler.

In the photo below, the split ring is shown being held open by these special pliers. Then, you merely slip the open end of the ring into the hole at the back, or wide end, of your spoon blade. Then, use the pliers to hold the ring while you turn it circularly until it is on completely. Once the ring is on the spoon blade, right, attach the hook by simply repeating the process.





How to kick - *The Show & Tell Syndrome*

by S.R. Slaymaker II

I don't know who's the biggest bore, the guy who yaks proudly about "limiting out" on opening day trout, or the conservation-minded fanatic who pontificates about his releasing *all* his catches. The compulsive limit taker is, of course, more than a bore. He's a menace. For he tends to rob the rest of us of post opening day action, thus giving credence to the old saw, "if you'd catch more fish, kill less." So, while it might seem fatuous to forego — every now and again — a few fish for the frying pan, it is axiomatic that anglers should make an effort to limit their takes in the name of good sportsmanship and conservation.

That too many anglers don't return most of their catches to the water is not, I suggest, proof positive that they don't believe in sportsmanship or conservation. Nor are many fish hogs. Some (perhaps most) are victims of what I term the "Show and Tell Syndrome." They want to prove to family and friends that they *can* catch fish!

In defense of those addicted to the show and tell syndrome, it must be categorically stated that it's often very difficult to convince nonfishermen that you caught and then released a fish. Invariably they equate the catching of fish with the eating of same. A case in point is my father.

While growing up on our family farm near Gap, Pennsylvania, he worm-fished the Pequea Creek for sunfish. He never fished as an adult, doesn't understand fly fishing, and used to harbor secret misgivings about his son's fly angling expertise. When I returned from a trout stream, he would often ask for a few trout. When I replied, "Released 'em," he gave me a half quizzical and peeved look, and I know that he thought me fibbing. Occasionally I brought him a few trout in hopes of laying low his disbelief.

If my father questioned my veracity on the subject of fish releasing, August Schnitzler believes me to be a downright liar.

"Augie," my sister-in-law's father, paints beautiful landscapes of his beloved Catskill mountains, where he owns a restored colonial farmhouse. Several years ago Augie, a nonfisherman, invited me to spend a long May weekend at his Catskill home. While he painted I fished those fabled Catskill streams, Schoharie, Willowemoc, Neversink, and Beaverkill, concentrating mainly on "Catch and Release" stretches since they contained the most and the largest fish.

Following the evening of the first day I drove back to Augie's house in a state of elation. There had been a mayfly hatch on the Neversink, and I'd had a ball. I effused to Augie and he requested my fish for our evening repast. I delivered a sermon on trout releasing in the name of conservation. It left no imprint. Plainly, Augie was certain that I'd caught no fish.

The next day I fished the Schoharie; again, a "Catch and Release" stretch afforded much fun. Toward evening I repaired to open water in hopes of furnishing a few trout for our dinner. Fishing was slow. I caught a bluegill, a nine-inch smallmouth, and an eight-inch brook trout that looked thin and sickly. I simply *had* to release them all.

On my return Augie said, "Don't tell me you put your fish back again!" When I answered in the affirmative he



quickly changed the subject and began preparing pre-dinner drinks.

My last day was spent on the "Catch and Release" section of the Beaverkill. Fishing was superb during the morning. When action tapered off around noon, I lunched and dropped in on my old friends, the world renowned fly-tying team of Elsie and Harry Darbee, who live near the Beaverkill at Livingston Manor.

From midafternoon through early evening, those lovely riffled glides boiled as trout rose to a combined fall of spinners and a hatch of what appeared to be Light Cahills.

I spied a heavy fish working in front of a sofa-sized outcropping of rock near stream center. With a quickened heartbeat, I dropped my Cahill imitation at the base of the rock. It floated a couple of feet and was taken with a subdued splash. When I struck back, this burly brown trout sped upstream in a prolonged run. He stopped as backing began appearing on my midget Hardy reel. We had a splendid tussle of seven or eight minutes' duration. On working this seventeen- or eighteen-incher close to my boots I was thrilled to note its deep girth, the bright gold-brown hues, livid orange-red speckles and toothy undershot jaw. Plainly, this beauty had been around for a long time. "What would Augie Schnitzler think of this fish?" I said to myself.

It was only an instantaneous flicker of an idea, but I must own up to it. No one was close enough to spy me spiriting the fish up the embankment to the station wagon. Were the heinous deed done, I could scotch Augie's disbelief in my angling ability, once and for all! For scant seconds I debated, silently, like the proverbial alcoholic passing a bar after his first few days "on the cure." What if I got caught? How would the Darbees (just down the road) react? And my many other brothers of the angle? Just as important, how could I live with myself?

continued on page 25



Fish Commission owned Rose Valley Lake, not too far from Williamsport, is providing this youngster with big lake fishing his grandpa never knew!



**New lakes, a river on its way back,
plus some old reliable trout streams**

Paint a Pretty Piscatorial Picture

for central Pennsylvania fishermen in '75.

**by Richard F. Williamson
photos by Russell Gettig,
Staff Photographer**

Two fine new man-made lakes are now coming into their own in the Williamsport area of North central Pennsylvania.

They have special appeal for two reasons: They are the first lake fishing ever available in the immediate area; and, they solve the problems of the gasoline-conscious angler who prefers not to drive half way across the state to fish a lake.

The new lakes really are bonuses, for the area is also the location of two brawling streams that can knock a careless wader off his feet and a placid creek flowing through farmlands. All three contain bass and other warmwater species and panfish, as well as brown and rainbow trout.

To put frosting on the angling cake, the West Branch of the Susquehanna River, plagued for generations by acid mine water, is making a comeback.

Top new lake in the area is the Fish Commission owned ROSE VALLEY LAKE, north of Williamsport off Route 973. It promises to be a real hot spot by the end of this year. The lake was completed in the summer of 1973 and heavily stocked with tiger muskies, largemouth bass, walleyes, pickerel, bullheads, and red-eared sunfish. Bluegills are a sort of bonus, coming from ponds in the area prior to creation of the lake, and during the winter of '73-'74, ice fishermen took bluegills up to half a pound in weight.

James H. Lauer, waterways patrolman for Lycoming County, predicts that bass, walleyes, muskies, and pickerel of legal length will be taken regularly from the lake by the latter part of this year and in 1975. Stocked fish have shown an unusually rapid rate of growth; although this is typical of new impoundments.

The second lake was built by the Pennsylvania Power

and Light Company on a site near Washingtonville, Montour County, reached via Route 54.

During the last winter, ice fishermen took largemouth bass, walleyes, and northern pike from this lake, which has also been stocked with tiger muskies, bluegills, channel catfish, bullheads, and bluegills. Clair Fleeger, supervisor of the Northeast Region, in which the lake is located, predicts that excellent fishing will be provided by this lake, although the growth of the muskies has been somewhat slower than hoped for.

In both the Rose Valley and P.P. & L. lakes, the pattern of fishing has yet to be developed, although small jigs and spinners and spoons have already proved effective.

A third lake in this area, incidentally, is Hunters Lake, a stump-filled body of water off Route 42 that has for a number of years produced good catches of trout, bass, and panfish.

Most interesting and challenging of all the streams is Loyalsock Creek, along Route 87. It has broad, deep riffles, swift glides, and great pools, often spring-fed, containing a generous sprinkling of large boulders and rocky ledges.

Something to remember for next spring is that the Loyalsock is at its prime from the first of May through June, offering superb fly fishing. Good angling continues through July and August when it is not unusual for a husky smallmouth bass to take a fly fished delicately in the hope that it will attract a brown or rainbow trout. The stream also contains a variety of panfish and, at the point where it flows into the Susquehanna River, holds a scattering of walleyes, northern pike, and an occasional muskie.

Nightcrawlers, hellgrammites, and stone catfish are



Rose Valley Lake's three paved launching ramps make access to its 360 acres quite convenient for boat fishermen.

favorite live baits for the bass fisherman. But on the large pools of the Loyalsock there is also excellent fishing with fly rod bassbugs and small surface plugs, particularly in the evenings.

Night fishermen also prowl the Loyalsock, drifting large wet flies from riffles down into the pools, and big bass and big trout both take the flies.

Big Pine Creek, flowing along Route 44, is also a big, brawling stream, very much like the Loyalsock. In its lower reaches it contains smallmouth bass pickerel, some northern pike, and a scattering of trout that move downstream from the upper area. This creek also is one of the best eel streams in Central Pennsylvania and has a variety of panfish, including whopper rock bass.

Here, also, the angler may use the usual live baits — stone catfish and minnows are the most popular — and artificial lures. Evening fishing with surface lures is at its peak in July and August.

In both Loyalsock and Big Pine Creeks the pools are wide and deep, and waders are essential. Even with waders, some anglers find it easier to fish with spinning or light casting outfits rather than with fly rods.

Lycoming Creek is a placid stream flowing southward along Route 14 and cutting through the western section of Williamsport. In its lower reaches, from the village of Cogan Station southward, it is smallmouth bass water. Live baits and gaudy streamer flies produce good action, and evening fishing with flies, bassbugs, and small surface plugs is good sport. Lycoming also carries a good population of panfish, and the catfish angling is good where the creek slows down and joins the Susquehanna River.

The West Branch of the Susquehanna was one of the

best fishing streams in Pennsylvania in the lumbering era. Then came a period when highly acid water, leaking from abandoned mines in the western part of the state, caused massive fish kills and destroyed the angling potential of the stream.

Today, happily, conditions are changing. The flow of acid water is being controlled, and a recent biological survey showed a dozen species of fish in the river. These include smallmouth bass, walleyes, and pickerel and an occasional northern pike and muskie. There is a growing population of catfish, carp, rock bass, and sunfish.

Fishing the West Branch is not easy; in fact, it can be downright frustrating. Live baits are popular, but spoons and spinners also are productive. Hottest fishing spot is the area where Loyalsock Creek flows into the river just east of Williamsport. This is where the walleyes and northern pike hang out.

A great deal of fishing is done by anglers from the shores of both the Loyalsock and the river, but a boat makes the angling easier and puts the fisherman within reach of more and larger fish.

Finally, Chillisquaque Creek, reached via Route 642 in Montour County, is a deceptive and interesting bass stream. It is weedy and sluggish and not particularly attractive in appearance, but it has pools of often deceptive depth which contain bass and pickerel. It is a great creek to fish with fly rod bassbugs in the evenings.

Come what may, it looks like 1975 will have a lot to offer northcentral Pennsylvanians: new lakes, their old standby streams, plus the seemingly rejuvenated West Branch of the Susquehanna River. If gasoline is high priced, in short supply, or both — there will be plenty of good fishing close to home.

"This is the Captain Speaking"

by Capt. C.E. Leising USCG (Ret)
Director
Bureau of Waterways

I have just returned from the 14th Annual Meeting of the Northeastern States Boating Administrators Conference (NESBAC), hosted this year by the State of Vermont. Boating Administrators and other officials from all 11 Northeastern States except Delaware attended to "meet and discuss" recreational boating matters common to the Northeast. Representing the boating industry were, the National Association of Engine and Boat Manufacturers, American Boat and Yacht Council and the American Water Ski Association. BIA/OBC representatives had to cancel but sent a position paper. The U. S. Coast Guard sent representatives from Washington, New York, and Boston headquarters; the Coast Guard Auxiliary, National Commodore Harold B. Haney; the U. S. Power Squadrons, National Vice Commander Robert L. Woods; representatives from the Washington headquarters of the American Red Cross and the Army Corps of Engineers and several boating writers were also present and participated actively in the discussions to furnish valuable input.

Being President of NESBAC this year I instituted a new format for the Conference meetings in not scheduling any speeches or prepared talks on subjects that we have all heard about so often: "*How great an organization we are*". With that old theme, the State Boating Law Administrators (SBLA's) who do have real problems in trying to get their state laws into conformity with federal law and regulations (which change regularly) and into some degree of uniformity with those of other states — certainly something all boatmen would welcome — never got an opportunity to discuss the real nitty-gritty problems that arise on the water when operator and enforcement officer meet. Nor were the problems of the boat builders, the nationally established leaders of the industry as well as the backyard builder, ever discussed in a manner that permitted input from all interested groups in an effort to identify and solve them. The program

looked good in print; but insofar as contributing to problem solving, it did not have much in content.

The change in the agenda provided for panel discussions of each aspect of the SBLA and his job. The relationship of the SBLA to law enforcement, formal boating education, liaison with the volunteer organizations, boating accident reporting and investigation, liaison with industry, and how he can best get help from the media were among the topics. Each generated such lively discussion that the moderators were hard pressed to keep anywhere near schedule.

I am glad to report that there was solid agreement among all who attended that they got more out of this meeting than any they had previously attended. And, they voted to follow the same format again next year — but with fewer panels so that the more troublesome problems can be given more time. Progress is being made!

The purpose of NESBAC as stated in Article I of the Articles of Organization adopted in Boston in 1961 is:

- (a) Promote boating safety and provide means for the interchange of information and experience among officials concerned with boating problems.
- (b) Encourage and promote cooperation and uniformity of boating rules, laws, and regulations of the Northeast, the Coast Guard and any other appropriate federal officials and agencies; and, whenever desirable, with states in other regions of the country in matters relating to boating.

Achievement of the stated purpose is not as easy as you would think it should be. Not only do the state legislatures, wherein lies the ultimate lawmaking authority, vary greatly from state to state in size, organization, and as to when they meet, but also the administrative handling of boating matters is so different. Of all the states represented at the Conference, only in Pennsylvania is there a special revenue fund established by law to receive monies from registration fees, and from liquid fuels taxes dedicated to the administration and enforcement of the boating laws.

Only in Pennsylvania is there a Boating Advisory Board appointed by the Governor which meets in public sessions and to which "*any proposed regulation affecting the equipment and/or operation of any vessel subject to this act*" (i.e., Motor Boat Act 400, as amended) must be referred for advice and opinions. Only in Pennsylvania is the boating administrator located in an independent agency of the state and directly responsible to the agency head for regulations, including their enforcement, boating education programs, and improvement of the boating public's opportunity to enjoy the waterways. In all the other states, there is divided responsibility and authority and the administrator is in a small section of a large cabinet-level department where boating is just one of many programs that must compete for funds and attention. It is easy to understand, therefore, that the same general reaction prevailed as has been the case at other regional and national meetings of State Boating Law Administrators: Pennsylvania representatives appreciate even more how much better we are organized to respond to the wishes and needs of the boating public and those from other States envy us all the greater!

CO-OP NEWS

by Bill Porter

The Spring Mills Fish and Game Association, Centre County, is our concern for this edition of the CO-OP NEWS with some emphasis on their unique aeration system. But more of that later, first an overview of the club and its nursery.

One of two new clubs, the other being Three Point Sportsmen's Club, to enter the Cooperative Nursery Program in Centre County, Spring Mills began operations in 1972. Construction included a cement and cement block arrangement along standard lines as recommended by the Cooperative Nursery Branch. Screens were added to protect against predators and to all intents and purposes, the club was on its way to producing trout for area streams with no immediate problems.

Water came from a spring, following a natural channel to the nursery site where an intake dam was built to divert the needed amount through the raceway. At this point some problems developed.

According to Tom Stitzer, nursery manager and our host at the time of the visit, the marshy terrain was not conducive to good dam building. And the seepage under and around the dam produced some water quantity problems. Temporary measures to correct the problem included the installing of some plastic sheeting on the upstream side of the dam, and some channeling of the watercourse from the spring house. At the time of the visit in the late spring of this year, the water supply seemed adequate. However, Tom showed some concern for lower summer water amounts and indicated that a major improvement in this area of the nursery was in the works for this summer.

However, the "thing" that most attracted our attention was the method the Spring Mills Club used to correct a dissolved oxygen deficiency and a nitrogen problem that had developed. A "minnow saver" was used and this would not be particular news to those in the nursery business. However, it was the way in which the device was employed that was interesting and might prove helpful to other clubs with similar problems.

The layout of the nursery must be described before additional details are



Aerator mounted on surf board adjusts to fluctuating water levels.

meaningful. The water comes into the raceway at right angles to the nursery itself. At this point, there had been some dead water and not much aeration for whatever the problem. Since water levels varied and force of flow also varied from time to time, it was tough to install the aerator in a proper position. It was then that the creativeness of the members — an item characteristic of most clubs in the program — took over and a *surfboard* was brought into play.

Yes, a *surfboard* in the middle of Centre County, hundreds of miles from any surf, resolved the problem. The board itself was actually a child's-sized one and with some cutting and trimming and additions of a few boards, it was made to ride the waves of the intake box, supporting the "minnow saver" in its middle, and always at the right level for best turbulence and aeration.

The whole unit, on its initial trials, banged into the block walls and otherwise behaved in an erratic manner. This condition was corrected, according to Stitzer, by establishing several ropes, hook eyes, and a pulley system, that once adjusted, would keep the unit right in the

middle of the intake box where it belonged. The whole thing worked exceptionally well and was almost 100% automatic in adjusting to water levels, surging currents and the like. Needless to say the nitrogen and oxygen problems were reduced proportionately.

The final phase of the visit involved a trip up the mountain and down the mountain and up part of another mountain to a lovely wooded site, being considered by the club as a holdover area for larger trout, or as a possible development area for another nursery. These plans are quite tentative and agreements with property owners and so on are yet to be developed. However, it shows the intent of the club to continue growth of their nursery when conditions permit. Besides, it was an interesting ride up the mountain dirt road in the midst of a misty rain aboard a bucking, bouncing jeep.

And as Tom Stitzer told it and we saw it, that's about it for the Spring Mills Club and its nursery at the moment, another successful contributor to better fishing through the medium of the Cooperative Nursery Program.



BACK FOR "SECONDS"? NO WAY!

Littering is such an easy and quick violation to perform — unthinkingly — that most people have been guilty of this act at least once. After all, who wants to carry all that dirty junk in a nice clean car? When caught, however, most litterbugs are immediately "converted" as the following incident will illustrate. Deputy Waterways Patrolman Gerry Chapleski observed a fisherman take all his trash from his fishing spot, put it in a large paper bag and carry it about a half mile to his truck. Before entering his truck, he looked around and, seeing no one, he gave the bag and its contents a heave over the bank towards the river. This gentleman was a good sport and paid his fine with no complaint. The next time I saw him he had a big sign on his truck which read "DO NOT LITTER." Apparently, the act of littering brings no remorse — **getting caught does!**

Fred Mussel
Waterways Patrolman
Lehigh County

WHAT NEXT?

I just don't know what this world is coming to! First it was the theft of the hatchery trout; now I have received word that one fisherman had two walleyes on a stringer alongside his bait bucket (that contained his live bait) and he had both attached to his boat that was tied to a mooring buoy out on the lake. You guessed it! When he went to get them, they had been stolen! Another complaint was from a young fisherman who was visiting here for a short fishing vacation. He and his friend had caught several bass in the 15- to 18-inch class, 4 or 5 walleyes 16- to 19-inches, and some nice perch. All were placed in an enclosed container and lowered to the bottom of the lake from the edge of the dock. He wanted to show his father when he arrived, but when he went to place another fish in the container, someone had removed all the other fish! The box was still fastened shut so it is not a case of the box coming open accidentally and then rellocking itself. The person that does these things is nothing but a common thief and he is no better than a person that would sneak into a house and steal a person's life savings. I hope they choke on the bones!

Joseph E. Bartley
Waterways Patrolman
Pike County

DUMB DUCK!

While patrolling the FISH-FOR-FUN area of the Falling Spring Creek, I observed an angler doing battle with, I assumed, a fish. Approaching nearer, I saw that the angler was a young lad, and was indeed doing battle with a creature on the end of his line, but it was a female mallard duck, not a fish! Seeing me, the lad asked if I would help him, "get that Dumb Duck off my line". A little surprised at the sight, but willing to help the lad, he and I proceeded with the task. Finally, mamma mallard was unhooked and left to round up her brood and paddle off downstream as if nothing had happened.

Larry Boor
Waterways Patrolman
Franklin County

NOT LIKE YOU THINK!

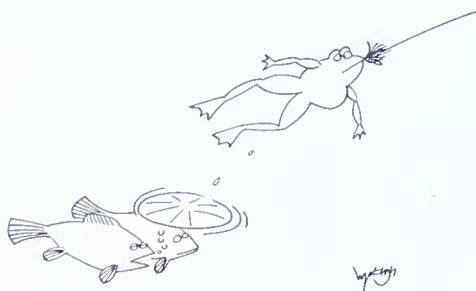
Oftimes, along our many waterways, a Fish Commission field officer is seen taking information from someone. An observer of the scene might think to himself, or say to a companion, "There's another poor soul being arrested!" And, sometimes this is the case; but, most of the time the majority of names and addresses we "record" are for *Angler* subscriptions, creel census information, *Angler Fishing Citations*, or, in the case of a boater he is often written a, "Congratulations, your vessel meets legal requirements" slip. So, folks, the next time you see one of our Law Enforcement officers writin' away, remember — things aren't always what you think!

Jay B. Johnston
Waterways Patrolman
Bucks County

LIGHT 'EM UP—

Deputy Waterways Patrolman Joseph Waiter was observing two fishermen preparing to launch a boat at Lake Silkworth one evening, just before sunset. As Officer Waiter could not see any type of lantern on the boat, he asked one of the men if he had a light. The man turned to his buddy and asked, "Hey Joe, do you have a match? This guy needs a light." *I wonder if they ever did see the light*

Claude M. Neifert
Waterways Patrolman
Luzerne County



... THAT WAS A GREAT INTERCEPTION ...

SEA MONSTERS?

A recent visit with Deputy Waterways Patrolman Kenneth Dufalla found him in the process of making a large net and hook. Upon being questioned about his endeavors, he related the following story: It seems he received a call recently from one of the local marinas on the Monongahela River at the mouth of Ten Mile Creek. His callers were quite excited and wanted Deputy Dufalla to come to the marina and investigate the "sea monsters" that had appeared there. Deputy Dufalla laughingly informed his callers that they spent too much time in the sun, and that he would investigate the creatures *when one had been captured*. The following morning Deputy Dufalla was awakened by another call from the same marina and received the report that two of the "monsters" had indeed been captured. His curiosity aroused, Deputy Dufalla proceeded to Paradise Haven Marina and found the two "sea monsters". They turned out to be fresh water jellyfish. Deputy Dufalla figures that if the Monongahela River is clean enough to support jellyfish, octopus are the next logical step, and he's going to be ready for them!

Gary E. Deiger
Waterways Patrolman
Greene County

Show & Tell

continued from page 19.

"No," I said aloud to the brownie, "You'll be unleashed." And he was immediately.

Augie greeted me in an excited state. He was not interested in my tale about the big trout and how I was tempted to bring it back. He hurriedly signalled me towards the small run which traverses his lawn. Earlier he told me that there were a few trout in it, but we hadn't seen any. Now, he had one staked out; an eight- or nine-inch brook trout, lazily finning against the opposite bank.

"Let's see you catch him," Augie whispered excitedly. There was a distinct note of challenge in that whisper. This was the perfect opportunity to prove myself! My rod was still set up with the Cahill. Taking it from the car, I knelt low behind a stump; one false cast, two false casts — the measure of line was perfect. I let it go. The line curled into a tree limb on the far bank (I was that "up tight"), and the little trout vamoosed.

Augie was silent. I read in the long look he gave me belief that I'd be better off taking up a new pastime. Painting, perhaps!

Quite by accident I discovered an easy way to prove to nonfishermen that I can and do release fish.

During a Hickory Shad run in the Octoraro Creek, just below the Mason-Dixon Line from southern Lancaster County, Pennsylvania, my wife, Sally, lounged on a deck chair and took home movies of yours truly hooking, playing and releasing streamer-caught Hickories. Believe it or not, after showing the film to my father he became convinced that I actually *do* release catches. That he thinks this to be stupid doesn't matter, I'd proven the point. A few snapshots for your wallet (taken by a fishing companion) of you playing and releasing fish will help cure you of the show and tell syndrome.

Another method is the adoption of a rule to the effect that you release all fish under a certain length; let's say nine inches. As your fishing years pile up it's not hard to move the size up to 11 or 12 inches and in later years, more. As the syndrome fades you will be proud of becoming a true sport fisherman; one who helps to preserve fish for the enjoyment of his fellow anglers.

Over the years I've been able to kick the show and tell syndrome by talking fishing with fishing friends and avoiding the subject with nonfishing friends. Fishing friends require no explanations about fishless days, missed strikes, the "one that got away," and the returning of fish to water. To most of them the fun is the stalking of fish — the duping of them — rather than in the killing of them. Generally, nonfishermen don't understand these things. I found it as tiring as it was useless to try to explain to them the rationale of sports fishing.

A most revolting example of the show and tell syndrome occurred at the Anchorage, Alaska, float plane base in July, 1973. I was with a party about to fly into the bush under the guidance of my friend, Mike Hershberger, a regional editor of *Field & Stream*.

A plane had just landed with a group of businessmen who had been in the wilderness for a couple of days. They had two burlap sacks full of rainbows. The fish were dumped on the dock at the feet of their waiting and

thoroughly impressed wives. Surely, these "sportsmen" were suffused with prideful emotions. But some of the fish were beginning to putrify. The party decided it best to dispose of them. They were dumped in the shallows on the far side of the dock. What did these guys care? *They'd proven that they caught fish.*

Who knows how many such wasteful examples of the show and tell syndrome occur yearly across the continent? There are probably many. And, unfortunately, a lot of well-intentioned anglers kill fish by releasing them improperly.

The best way to insure minimum injury to fish is to use artificial lures (particularly single hook lures) since these are not so easily swallowed as live bait. Lures with barbless hooks facilitate fast fish releasings. True, you'll lose more, but usually not many more. And it makes little difference if you intend to release most of your fish anyway. Small fish — those up to ten inches — can be easily shaken off a barbless hook without your touching the fish or even removing him from the water. You simply slide your fingers down the leader to the lure, grasp it between thumb and forefinger and gently shake it loose.

If this doesn't work, hold the fish in the water, gently, just behind the gill plates, while removing the fly with your other hand. Should it be necessary to lift a fish from the water, some think it best to wet your hands so as not to remove the fish's protective slime. Others don't think wet hands are necessary. It's important, though, not to lift by the gills or squeeze too tightly. Quick grabs for a fish should be avoided. A steady pressure of the fingers should be applied; only enough pressure to facilitate a secure hold on the fish.

Long shank scissor-like "tweezers" are helpful when you're removing a deeply set hook. But if a fish is too deeply hooked to permit easy hook removal, it's best to snip the leader and turn him loose. His enzymes will eventually rot out the hook. Even when fish aren't deeply hooked, tweezers can enable you to dislodge hooks without touching a fish.

Large fish — or any hard fought one — should be held gently against the current (if you're stream fishing) so that water flows over his gills, not through them, thus drowning him. When your fish shows no signs of going sidewise from fatigue, and his gills pulsate strongly, he can be gently let go. You'll usually sense the time of release; he'll start to move on his own.

Far be it from my ending this homely on a self-righteous note, but I don't know how to put the following differently.

Like all anglers I savor the thrill of fooling, hooking and playing fish as much nowadays as I did when a neophyte. *But* for years now I've experienced thrills of equal intensity while turning caught fish back to their habitats. Central to the thrill — I must confess — is a sneaking feeling of superiority with respect to my nonangling friends. For I revel in knowledge about my pastime that they can't, or won't understand.

If and when, you, dear reader, feel the same way, you can be darn sure that you've kicked the show and tell syndrome — even though you may have never realized before that you've been allergic to it!

FLY TYING

“Tying a Sulphur Nymph”

by Chauncey K. Lively
photos by the author



If, as the old adage has it, “a robin does not a spring make,” then it is equally true that the emergence of a few mayfly duns doesn’t necessarily guarantee dry fly fishing. Particularly in limestone streams rich in natural food, and especially during the early days of a hatch of typically long duration, the trout often pay scant attention to the initial appearance of duns. It is almost as if they must first acquire the *flavor* of the hatch, like learning to love olives, before turning their attentions *en masse* to the winged insects. On the other hand, the pre-emergence activity of the nymphs is a strong attraction to trout and they feed heavily on the larval forms at this time. I didn’t think I needed to be reminded of this but two years ago I was, and in a rather persuasive way.

A favorite FISH-FOR-FUN stream we frequent has an excellent Sulphur hatch (*Ephemerella dorothea*) which first appears around the second week of May and extends over a period of about six weeks. We were there at the beginning of the hatch and, as expected, the few duns on the water floated unmolested until they flew off, drawing more the attention of birds than trout.

At a rather deep pool above a dam I knotted a Sulphur Nymph to my leader and idly flipped a rod’s length of line onto the water while stripping line to make my first cast. My attention was fixed upstream when I lifted the rod tip smartly to get the line airborne. At almost the same instant there was a rude downward yank at the rod and I looked around to see, first, the flash of a broad golden flank in the water and next, my empty leader rebound and wrap itself around the tip. It was the performance of a dub, an utter fiasco, and a fine trout I didn’t deserve literally caught me.

Much has been made of the importance of simulating the emerging nymph’s ascent to the surface. Skues recognized this and Frank Sawyer, his modern-day counterpart, suggests that when a freely drifting nymph fails to interest a trout it should be activated by a subtle lift of the rod tip to represent the upward path of the naturals. Sawyer exploits this maneuver most successfully and every veteran nymph fisherman knows that the swing-around of the nymph, as the leader pulls taut at the end of a drift, is a critical moment.

The water above the scene of my debacle, aforementioned, is constricted into a rather narrow, deep channel bordered by grassy, undercut banks. At a bend there is a large midstream rock, over which the water flows and forms a curling eddy behind. Invariably a particularly fine trout occupies the choice position in front of the rock, often hanging just beneath the surface if he is watching for drifting duns; otherwise, holding deep

near the stream bottom. I bent on a new Sulphur Nymph, soaked it in my mouth and crept through the tall weeds to a position below the rock. From my low vantage point I couldn’t see the trout but guessed he was lying deep. A cast was made to a spot well above the rock and when I estimated the nymph was approaching the trout I lifted my rod tip to start the nymph upward. I had a brief glimpse of the trout as he turned to the left; then he disappeared in front of the rock. Reacting to the movement, I raised the rod and the trout was on — and solidly. With reel screeching and rod bowed, I scrambled to my feet and raced along the bank after him. He was a strong, heavy fish and in his upstream dash he ducked under the bank, scattering other trout helter-skelter. Where the water broadens upstream he made a wide circle, bolted downstream and I finally caught up with him just above a footbridge. There we had the final round and he came to net, one of the handsomest specimens of brown trout I had ever seen. He was a tired warrior — and with good reason — for he had raced, upstream and down, nearly 100 yards. Gently I backed out the barbless hook of the nymph and lowered him into the water, holding him in the swimming position until he was able to operate under his own steam, whereupon he swam straightaway to the opposite bank and disappeared under the overhang.

The nymph of *E. dorothea* is brownish with golden yellow and amber markings. The three tails are froned and the legs are distinctly speckled. The Sulphur Nymph pattern is dressed over a flat underbody formed by gluing .015” monofilament strips to the sides of the shank and tapering them with a razor blade at the rear. The mottled effect in the abdomen is achieved by winding a brown condor quill fibre over a previously wound cream ostrich herl. A brown-dyed goose quill fibre may be substituted for condor if the latter is not available.

The formed legs shown in the illustrations are optional and, if one is inclined toward stark simplicity, a throat of partridge fibres may be used instead. However, I’d like to urge you to at least give the formed legs a try because the method is uncomplicated and in use they lay back under the body with tarsi bent outward in convincing fashion.

The fur dubbing for the pattern’s thorax is medium brown in shade and may be blended from any combination of furs and/or yarns plucked from the skein. Many fly tyers now mix dubbing in a kitchen blender (with milady’s permission, of course) and material supply houses are beginning to stock pre-mixed dubbing in virtually every shade, making the job of matching colors an easy one, indeed.

TO TIE A SULPHUR NYMPH:

1. Cut two .015" monofilament strips, slightly shorter than the shank of a size #16 regular or #14, 1X short hook. Glue strips to sides of shank and when dry, taper at rear with razor blade. Tie in brown thread at head and spiral back to bend, as shown. Half-hitch.

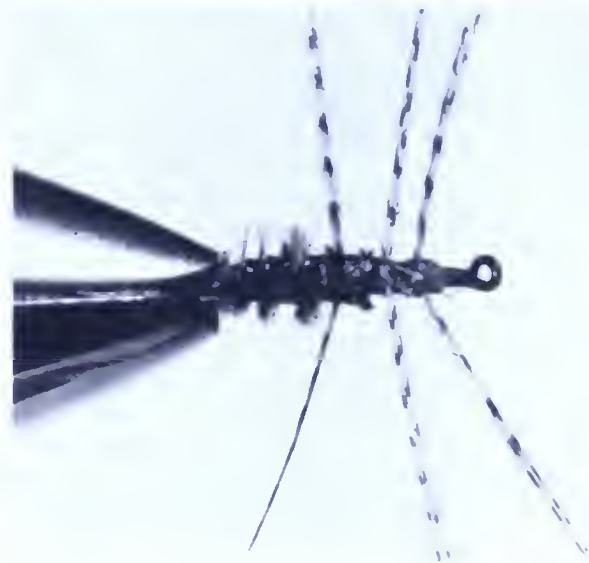
2. For tails, select three small light ginger hackles and strip away all barbules except at the tips. Tie in tails and take a turn or two of thread under base to separate. Place a small drop of cement on base of tails. Tie in one each brown condor quill fibre and cream ostrich herl by their tips over the tails windings. Wind thread forward to middle of shank.

3. Wind ostrich in slightly spaced turns to thorax position and tie off. Then wind condor quill between turns of ostrich. Tie off and trim excess of both strands. Trim off flue of the ostrich herl on top and bottom; trim to about 1/16" on sides.

4. (Bottom view) With bodkin point, separate two fibres of a large, brownish yellow wood duck breast feather. Cut fibres close to stem and stroke to hold together. Lay the double fibre across underside of hook and bind its middle at rear of thorax position with figure 8 turns. Repeat for remaining legs, spacing as shown. With bodkin tip, coat legs with thin vinyl cement.

5. (Top view) Spin dubbing of medium brown fur on tying thread and build thorax. Half-hitch thread behind eye. Bend leg joints with tweezers before cement sets and trim to size. For wing case cut a section of dark turkey quill to cover thorax and coat outside with vinyl cement. Cut a notch in one end of wing case and bind opposite end behind eye.

6. Lift free end of wing case and coat underside with vinyl cement. Then press in place over thorax. Build a neat head, whip finish and apply head lacquer. The completed Sulphur Nymph is shown on the preceding page.



Send the Angler to a friend!
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Keystone Camping

by Thad Bukowski

Camp Cookin'

Outdoorsmen sometimes have horrendous experiences with camp cooking. Two camping trips during the past year were especially enjoyed however, because we had a good camp chef on the first and I had a measure of success while working over the camp stove on the second.

Not being a culinary expert, I might follow by saying that this article may be more profitable to males of the angling fraternity who have suffered because of their lack of ability in the rudiments of the culinary art while camping. Women-folk may not necessarily learn from what follows, but male fishermen who stay out for a few days might absorb a cue or two.

On the first camping occasion I was in luck as a companion was a former scout leader and said he could, *"do more with a tankful of white gas and a little camp stove, than many women at home in a kitchen."*

"I'll have my eggs flipped for breakfast," I promptly informed, and he scratched his head.

"We'll, I'll do the best I can with a *tablespoon*, but I'm not going to guarantee anything." We had forgotten a skillet flipper! On the second trip, I had an old cantankerous can opener and learned how important a good one might be.

Additional handy items among the kitchen needs include at least one sharp knife, a pair of tongs, a roll of paper towels, and another of waxpaper, condiments, soap for dish cleaning and cracker crumbs and either cooking oil or some kind of cooking "grease" for the fish one is supposed to catch.

My companion's chicken was particularly delicious and done very simply. He browned the four legs and thighs I brought along in a little cooking oil for about 15 minutes, seasoned them, covered the pan with aluminum foil and let the cookin's simmer for another 45 minutes on the camp stove.

The only thing we missed on that trip was the flipper and a jar of jelly. Our sweet tooth was aggravated by the fact that a racoon stole a half dozen breakfast rolls the cook carelessly left atop the

camp table. I was blamed for the robbery until my companion found the wrapper with a chewed hole in it, minus buns, in the nearby bush.

When I was nominated cook for a group of three on the next trip for a week, I planned a menu which included two dozen eggs, fish to be caught, milk, hamburger for the first day, cheese for toasted sandwiches, tomato soup, bread, syrup, nine large potatoes, canned fruit, juice, three pounds of the best sliced ham I could find and plenty of lunchmeat.

I was almost shocked at how well we got along! But, by the seventh day admit I began to feel a bit ragged because I was running out of ideas. We ate two meals, a late breakfast and supper, and fished the rest of the time.

Breakfast became somewhat easier when the others asked for a couple reruns of ham and French toast. I'm not one of those floppy-white-hat guys, nor did I pore over any cookbook recipes, but from observing my wife — and even earlier — mother in my younger years, I just "guessed at" beating four eggs with a table spoon in a bowl, added about a half-glass of milk to the mixture, then dunked slices of bread into it and plopped the bread onto a none-too-hot skillet.

The youngest of the group ate four big slices each time! The ham was also relished and thick slices were first brought to simmer in water in another skillet, the water drained off, then the ham fried.

"It's the way my mother used to do it on the farm to take out the salty taste," my wife often commented to me, before I snatched the recipe.

I must confess that I used my mother's fish frying method. First, I beat a couple of eggs in a bowl, into which fresh fish fillets were then dipped, then into cracker crumbs and finally into deep grease at a little hotter than medium temperature on the skillet.

Of course, all grease and all pans were first brought to the desired temperature before anything was dropped into them. I would like to remind new cooks about this after watching food dumped into cold grease by other, erstwhile camp chefs, and sampling the results!

I prepared for a couple of meals by boiling potatoes the night before — for frying the next day. After the first night, however, I had to hide them. While doing his cleanup chores, one of my cronies tossed them out the first night thinking they were "leftovers"! I intended to slice and fry them with diced bread to which I added an egg for scrambling. The concoction was a successful part of the menu on the succeeding day.

Another camp tidbit without a toaster nearby was simply to butter bread on

both sides and fry to the color of toast. With jelly, it went over big for breakfast as toast, southern-style, I guess.

"How does this compare with the cooking on your previous trip," I asked by weekend when my chores were coming to an end.

"Oh," the two replied, "Nobody wanted to cook the other time, so we always got into a car, drove into town and ate at a restaurant."

Some camping, I thought! But was even more puzzled when the other two wondered why our most recent trip was so much less expensive.



My camping companion was a former scout leader, an excellent camp chef, expert with chicken or fish!

THE ANGLER'S NOTEBOOK

by Richard F. Williamson

FISH FACT: Trout, pickerel, northern pike, walleyed pike, and some species of panfish actively feed during the winter months, even under the ice of a frozen-over lake or pond.

Light tackle and very small lures, fished very, very slowly — and on or near the bottom, will take bass during the winter, through the ice, or in open water. But bass fishing in winter is tough. The fish are lethargic and will not chase a lure. Small jigs dressed with bucktail (or other hair) are good lures.

Sinkers in a variety of weights are essential for the ice fisherman. The rule is to use no more weight than is necessary to get the bait down to the desired depth. And since baits can vary in bulk or weight, a sinker that will do for one is not necessarily the correct weight for another.

Northern pike and pickerel haunt weed beds in winter as well as in summer, and often they can be caught in water no more than six or eight feet deep if there are weed growths on the bottom.

Check a strange lake or stream to learn what kind of forage — golden shiners,

certain species of minnows, or crayfish, for example — are native to its waters. Then use either live baits or artificial lures that represent the resident food-stuffs.

A lure with a double rather than a treble hook is far less likely to get hung up on underwater obstructions.

Sections of streams shadowed by bridges and piers are good fishing spots.

So you plan to get some bassbugs for fishing next season? Here is a word of advice: Get a variety of sizes, ranging from a No. 2 hook down to Size 6 or 8.

Hungry fish will take worms if they are fished deep and moved very, very slowly — not just allowed to lie on the bottom. Use only enough sinker to get the worm deep, and then work the rod to make it limp along the bottom.

Not all minnows are big, and streamer flies that immitate minnows need not always be big. For example, streamers for trout are most effective in smaller sizes; those tied on No. 8 or No. 10 3X long shank hooks, for example.

Maybe because it looks like a caterpillar, the Brown Bivisible is a good

all-around dry fly. Because it is easily seen on the water, it is good in fishing broken water and in searching for pockets of deep water in riffles.

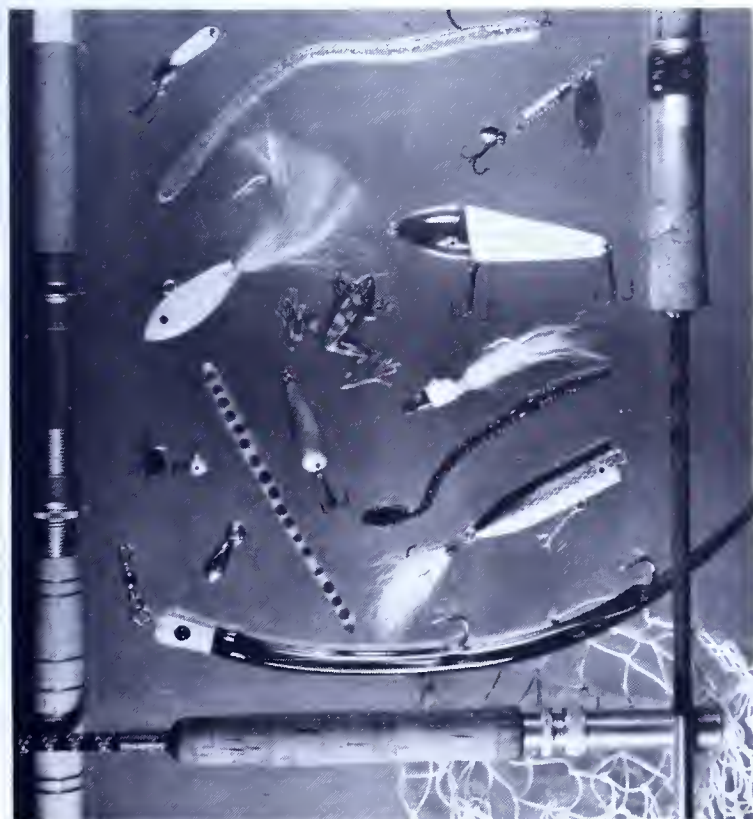
A point of land jutting out into the water is good bass territory because the point extends into deep water where bass rest between moves into the shallow water around the point to feed.

Trolling is not all "riding around in a boat . . . dragging a lure." Fish-catching action can be imparted to a trolled lure by occasionally raising and lowering the tip of the rod or by slightly changing the speed of the motor.

Pork rind eels and strips, four- to six-inches long, make jigs, spoons, and spinners more effective. The eel can also be fished alone on a weedless hook.

Good walleye lures are sinking plugs with spinners at the head and tail.

A knot or hard kink in a monofilament line is a danger spot because it weakens the line and may cause it to break under pressure. The line is long enough that the damaged portion, usually near the end, can be cut off without materially reducing the length of the line.



Book Review —

TACKLE CRAFT - by C. Boyd Pfeiffer
(Crown Publishers, Inc., 419 Park Ave.
South, New York, N.Y. 10016)

THOSE OF YOU WHO HAVE BEEN *Pennsylvania Angler* readers since 1965 or earlier may remember the column "Tip-O'-The-Month" by C. BOYD PFEIFFER. In that column, Pfeiffer gave monthly tips on rod care, maintenance, and building — as well as illustrated instructions on making homemade lures and other tackle. This and much more is the subject of a recently published book entitled **Tackle Craft** that is certain to become a fishermen's classic.

Tackle Craft is the first practical book that will enable an angler to make his own tackle just as a fly fisherman makes his own flies. Illustrated with 400 "how to" photos and clearly written text, this "do it yourself" guide will enable many to produce tackle to fit their own specific needs.

Included in the 288-page book are step-by-step basics for making fly rods, spinning rods, boat and big game rods and bait casting rods. There are complete chapters on the making and painting of lures such as spinners, bucktails, spoons, wood and plastic plugs, and the soft plastic lures. Other topics covered include nets, plug retrievers, gaffs, rod holders, rod racks and cases, floats, and bait boxes. The final chapter covers the care and repair of tackle including the repair of broken glass and bamboo rods. There are also appendices on suppliers, sizing charts for ferrules and guides, tip tops, spoons, and hooks.

With the skyrocketing costs of good tackle, **Tackle Craft** should find a large audience among anglers who want to pursue an interesting hobby and save money as well.

The book is available from the publishers or from **SPORTSMAN'S BOOKSHELF**, 9306 Joey Drive, Ellicott City, Md. (Not available from *Pennsylvania Fish Commission*.)

Tom Fegely



The "OFFICIAL" signboard indicates that this auxiliarist's patrol is being carried out under Coast Guard orders.

Ashore & Afloat

by Gene Winters

"To promote safety and to effect rescues on and over the high seas and on navigable waters;

"To promote efficiency in the operation of motorboats and yachts;

"To foster a wider knowledge of, and better compliance with, the laws, rules and regulations governing the operation of motorboats and yachts; and

"To facilitate other operations of the Coast Guard".

So states paragraph 822, Title 14 of the U.S. Code, referring to the Coast Guard Auxiliary. The Auxiliary is, in fact, the only boating organization in the nation created and chartered by an Act of Congress (Public Law 451). It

is not a military organization; its functions fall within the civil arm of the Coast Guard. The Auxiliary has no law enforcement authority nor does it desire any. In addition to assisting the Coast Guard directly, the organization serves as a national outlet for the dissemination of maritime information to the boating public.

When I originally planned this column, I had intended to delve into the mystique of what makes one join this organization. But I think just telling the story of the Auxiliary in itself gives the basic answer. Deeper reasons are best left to the psychologists and public relations people.

The Auxiliary operates on a National-District-Division-Flotilla unit structure under the Coast Guard and its members serve without pay. Built upon four cornerstones, there are three that directly affect the public: Education, Vessel Examination of Pleasure Craft, and Safety Patrols. The fourth, "Social", adds a touch of fellowship and camaraderie to the boating fraternity. But from the beginning of membership (Conditional), through BQ (Basically Qualified), to Operational Member (AUXOP), each phase is mission-oriented.

Membership is open to U.S. citizens (male and female) seventeen years of age and over, regardless of race, color, or creed. Prospective members normally are expected to have at least 25% ownership in a boat but waivers are possible for those with special qualifications or interests. Holding 20% of total membership and growing daily (and

representative of today's active women), lady Auxiliarists hold many elective and staff offices and participate vigorously in all programs. Many husband and wife teams are highly active and the family is the pivot point in the success of the Auxiliary's many-faceted objectives. Members (and their craft) who meet special requirements earn the right to fly the coveted "blue and white ensign" on their vessel. Uniforms are optional and are prescribed only for patrol work. At other times they are encouraged. Many elected and appointed officers wear the uniform for Auxiliary-related functions and members engaged in classroom teaching and pleasure craft examinations often don the uniform. There are no "ranks" as in the military and the Auxiliary uniform is sufficiently distinctive so as not to be confused with the Coast Guard military uniform.

The CME Program (Courtesy Motorboat Examination) is a highly positive program which provides a tangible service to the public. It is free, made only at a boatowner's request and covers the boat's general condition and equipment. Provided it meets state and federal legal requirements and additional Auxiliary standards, the coveted CME decal is awarded. Issued yearly, display of the decal attests the boatowner intends to maintain his boat and equipment in similar condition throughout the year. At the conclusion of the examination, the check-off list is given to the boatowner. If the boat does not pass, no report of deficiencies is made to any law enforcement agency and if needed corrections are made, the boat can be re-examined and passed at a subsequent inspection.

Auxiliarists' boats which operate as "Official Patrols" (*under Coast Guard orders*) are reimbursed for actual fuel consumption and meal subsistence costs. They are also covered for liability and damage claims while under orders. There are also "Unofficial Patrols," in which case no cost reimbursement is made, but the value of such patrols is equally important. Members undertake

these patrols on their own (subject to governing conditions) in the public interest. All patrol vessels carry identifying signboards. The Pennsylvania Fish Commission and the Coast Guard, through the Auxiliary, have instituted a number of patrols on selected waters throughout the state. At times, Auxiliarists are pressed into search and rescue service by the Coast Guard and many Auxiliarists were in the thick of things during Hurricane Agnes and its aftermath in 1972.

Auxiliary Public Education now has nearly a dozen courses and/or programs to offer all age groups. Beginning with a coloring book course for kiddies in kindergarten to a highly detailed and comprehensive twelve lesson course, the approach covers all boating interests. Special programs are available for presentation to scouts, clubs, churches and other civic organizations. Both powerboats and sailboats are covered. Like CME personnel, course instructors are specially trained for their field of interest and work with the latest in audio-visual techniques. Recently, Auxiliarists have assisted as instructors for the Pennsylvania Fish Commission in the presentation of the Commission's new three lesson boating course conducted by Waterways Patrolmen.

The social aspect of the program is also important. Such functions allow members to get to know each other better and share common interests, concerns, and problems. Picnics, sailaways, and rendezvous cement the bond of fellowship in this well-knit organization.

Pennsylvanians who would like to find out times, dates and locations of Auxiliary boating classes in their area (or more details on membership) can contact the Assistant Director of the Auxiliary (AsstDIRAUX), U.S. Coast Guard, P. O. Box 782, Federal Building, Harrisburg, Pa. 17108 (717-782-3737); or ask any Auxiliarist. Most flotillas will begin new classes shortly after the new year begins, *so now's the time to get the word.*

Some "rescues" require but a tow back to the nearest dock where a balky motor can be put back in running order.



FISH TALES



Angler Bob Ludwig, of Selinsgrove, holds two smallmouth bass taken from the Susquehanna River. He earned a Citation for the 20-1/4-incher.



James Dunn, of Altoona, caught this 27-inch, 8lb. brown trout last May from Spring Creek.



Charles Knerr, of Alburtis, holds the 26-inch, 7 3/4-pound American shad taken from the Delaware River, Pike County, in May.



Young Richard Wilson, 10, of Chambersburg shows his 21-1/4-inch, 3-3/4lb. rainbow trout caught in the W. Br. Conococheague Creek.



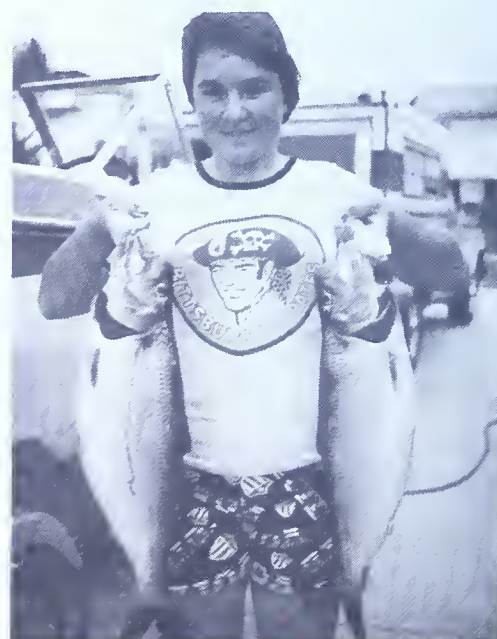
Mark Kuss, 13, of Mars, caught his 15-inch, 1-1/2-pound crappie in June from Pymatuning Lake, Crawford County.



Marc Myers, 15, of Greenville, caught this 10-inch, 1-pound bluegill from Pymatuning Lake in June, using worms for bait.



George Arey, of Coopersburg, holds his nice 14-inch crappie caught in Shohola Falls Dam, Pike County, last May.



Robin Hinkle, 11, of Lehigh, caught two Citation size American Shad: 23-inch, 5-pound; 22-1/2-inch, 4-1/4-pound, from the Delaware River.

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